

4-4



The Tiger

THE CALL IS A NEWSPAPER THAT'S ALL!

The One Best Paper in
San Francisco -- Clean,
Vigorous, Honest -- and all
the news that's fit to print

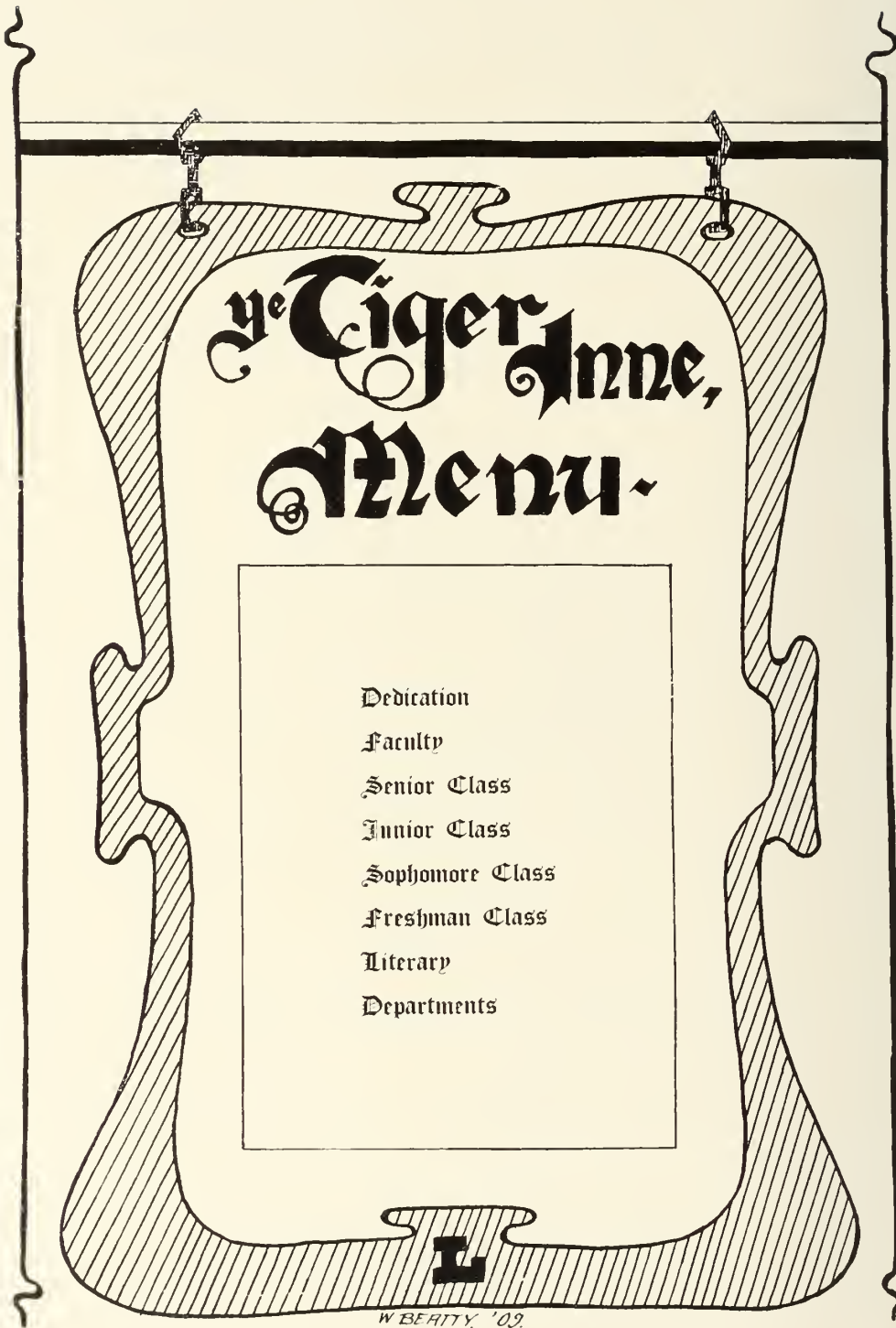
Everybody in San Francisco
Reads The Call:
DON'T YOU?

THE TIGER

Commencement
Nineteen Hundred and Seven

Chas. H. Bramstetter. - '08

THE CALIFORNIA SCHOOL OF MECHANICAL ARTS
SAN FRANCISCO



ye Tiger Anne, Menu.

Dedication

Faculty

Senior Class

Junior Class

Sophomore Class

Freshman Class

Literary

Departments

L

W BEATTY, '02.



To Miss Grace Ruth Southwick
we respectfully dedicate this book.

Officers of Instruction

George A. Merrill, B. S., Principal

Grace Ruth Southwick, A. B.	<i>English</i>
Theresa M. Otto, B. L.	<i>German</i>
Marion Adams, A. B.	<i>History</i>
Mary E. Edwards, A. B.	<i>Mathematics</i>
Gustav A. Witte, B. S.	<i>Mechanics</i>
Laura B. Bridgman, B. S., M. S.	<i>Physics</i>
Sidney A. Tibbetts, B. S.	<i>Chemistry</i>
Eda Menzel.	<i>Free-hand Drawing</i>
Wm. J. Drew, B. S.	<i>Mechanical and Ship Drawing</i>
Miss M. L. Crittenden.	<i>Sewing</i>
Mary E. Robertson.	<i>Cooking</i>
Charles A. McLeran.	<i>Pattern Making</i>
Jacob L. Mathis.	<i>Forge Work</i>
Bernard Lacoste.	<i>Molding</i>
W. H. Woodman.	<i>Machine Shop Practice</i>
F. A. Dixon.	<i>Engineer</i>
Aida M. Burns.	<i>Recorder</i>

The Senior Class

1907

Harry Dearin	.	.	.	.	.	President
Lou Knell	.	.	.	.	.	Vice President
Lester C. Uren	.	.	.	.	.	Treasurer
John McHenry	.	.	.	.	.	Secretary
W. Edgar Randall	.	.	.	.	.	Sergeant-at-Arms



George Wade Acton

CHEMIST

SAN FRANCISCO



Clinton B. Allsopp

COLLEGE

PREPARATORY COURSE

ALAMEDA



Robert B. Bachelder

COLLEGE

PREPARATORY COURSE

SAN FRANCISCO



Arnold T. Brown

COLLEGE
PREPARATORY COURSE
ALAMEDA



Kitty Branagan

POLYTECHNIC COURSE
SAN FRANCISCO



Frank E. Brown

DRAUGHTSMAN
SAN FRANCISCO



Walter H. Carrick
COLLEGE
PREPARATORY COURSE
POCATELLO, IDAHO



Rowland C. Clapp
MACHINIST
ALAMEDA



Ralph H. Coleman
MACHINIST
ARMONA, KINGS CO.



James Henry Dearin
POLYTECHNIC COURSE
SAN FRANCISCO



Emily G. Dobbs
POLYTECHNIC COURSE
MILL VALLEY



Charles C. Ebright
COLLEGE
PREPARATORY COURSE
SAN FRANCISCO



Melville Wm. Erskine
POLYTECHNIC COURSE
SAN FRANCISCO



Harold Bertrand Fisher
COLLEGE
PREPARATORY COURSE
ALAMEDA



John Warren French
POLYTECHNIC COURSE
SAN JOSE



William Wilson Gay

COLLEGE
PREPARATORY COURSE
ALAMEDA



Charles Lingard Golcher

COLLEGE
PREPARATORY COURSE
SAN FRANCISCO



Eunice May Henry

POLYTECHNIC COURSE
SAN FRANCISCO



Henry K. Hobson

POLYTECHNIC COURSE

ALAMEDA



Munroe Louis Hirschfeld

DRAUGHTSMAN

SAN FRANCISCO



Frederick M. Hohwiesner

COLLEGE

PREPARATORY COURSE

SAN FRANCISCO



Cora Virginia Klinkner

POLYTECHNIC COURSE

OAKLAND



Lou Knell

POLYTECHNIC COURSE

SAN FRANCISCO



Oscar William Lanzendorf

COLLEGE

PREPARATORY COURSE

SAN FRANCISCO



Herman Vance Leffler

COLLEGE
PREPARATORY COURSE
SAN FRANCISCO



Carl R. Lieb

POLYTECHNIC COURSE
SAN FRANCISCO



Frank P. McDonald

DRAUGHTSMAN
SAN FRANCISCO



John McHenry, Jr.
POLYTECHNIC COURSE
SAN FRANCISCO



Maud M. McKicon
POLYTECHNIC COURSE
SAN FRANCISCO



Henry E. Mikkelsen
PATTERN MAKER
SAN FRANCISCO



Edward H. Moor

MACHINIST

OAKLAND



Emile F. Muheim

COLLEGE

PREPARATORY COURSE

SAN FRANCISCO



Percy C. Nash

MACHINIST

OAKLAND



Arline Mabel Nesbitt

POLYTECHNIC COURSE

SAN FRANCISCO



Ferda J. Ogle

COLLEGE

PREPARATORY COURSE

DIXON



A. Leslie Oliver

MACHINIST

OAKLAND



Ruth Jeanette Parker
POLYTECHNIC COURSE
SAN FRANCISCO



Howell D. Perry
DRAUGHTSMAN
OAKLAND



W. Edgar Randall
POLYTECHNIC COURSE
SAN FRANCISCO



Henry W. B. Kintoul
POLYTECHNIC COURSE
SAN FRANCISCO



Frederick Canham
PATTERN-MAKER
SAN FRANCISCO



Ada Hoos
POLYTECHNIC COURSE
SAN FRANCISCO



Joseph H. Sanders

MACHINIST

TRUCKEE



Edmund C. Schwartz

POLYTECHNIC COURSE

SAN DIEGO



John A. Sharpstein

COLLEGE

PREPARATORY COURSE

ALAMEDA



Homer Shawhan
POLYTECHNIC COURSE
SAN FRANCISCO



W. Guy Smith
MACHINIST
ORANGE



Wilfred John Sobey
SPECIAL
SAN FRANCISCO



Herman Stein
POLYTECHNIC COURSE
SAN FRANCISCO



Leo H. Stoll
MACHINIST
RED BLUFF



Anders J. Swart
MACHINIST
SALINAS



Mahlon E. Sweet

COLLEGE
PREPARATORY COURSE
OAKLAND



J. Ernest Thompson

POLYTECHNIC COURSE
SAN JOSE



Lester M. Thompson

COLLEGE
PREPARATORY COURSE
MILL VALLEY



Henry C. Tice

COLLEGE
PREPARATORY COURSE
SAN FRANCISCO



Lester C. Aren

COLLEGE
PREPARATORY COURSE
SHAWMUT



Marie Louise Winchell

POLYTECHNIC COURSE
SAN FRANCISCO



Harold Wood

POLYTECHNIC COURSE
SAN FRANCISCO



Otis B. Whaley

POLYTECHNIC COURSE
LOS GATOS



Walter G. Voogt

COLLEGE
PREPARATORY COURSE
ALAMEDA



Philip Zipt
DRAUGHTSMAN
SAN FRANCISCO



Elva A. Woodman
POLYTECHNIC COURSE
SAN FRANCISCO



Rudolph Bettoli
CHEMIST
BERKELEY



Alfred Gray Rodda
COLLEGE
PREPARATORY COURSE
SAN FRANCISCO

Graduates of December, 1906

Annie E. Dallas	Polytechnic Course	San Francisco
Stanley Deakin	Polytechnic Course	San Francisco
Charles Herald	Pattern Maker	San Francisco

The Class of 1908

The Class of "Naughty-eight" has finished its time of probation.

From past records and achievements in the class-room, on the track, and in the social hall, it is safe to predict that the Class of Naught-eight will climb the steep grades of radiant energy, strength, and German; thunder and roar along the track, and glide through the devious passages of the convivial realm, with the throttle wide open.

But stay, Naughty-eight! Let us have three loud and long blasts for the old engineer, ere you start with your coaches three across a continent of Success.

Track Team

The record of the Track Team of the Junior Class is one that we are justly proud of. Starting in the latter part of their Freshman year, the track men managed to secure second place to the invincible '05 team, and since then up to the last spring interclass, when they were defeated by two-thirds of a point, they have easily won each meet.

The honor of winning the first Bay Counties Freshman League meet, as well as being the starter of same, belongs to our wonderful class. During our Sophomore year the team developed their greatest strength, producing many crack runners, including Crabtree, R. Miller, Padilla, Butler, Stevens, and Charlie Bell. Though the ranks have been greatly depleted, we will undoubtedly maintain our "rep" during Senior year.





The Class of 1908

Foot Ball Team

The football team of the Class of Naught-eight has this year, as in past years, successfully upheld their reputation on the gridiron. Under the able captaincy of Floyd Newton, they swept all the other teams before them and now stand the champions of the Interclass League of the school. The team has the proud distinction of not having been defeated in any class game. They defeated '10 and '09 by large scores, and the redoubtable Seniors also fell before their superior offensive playing, the final score being 17-12. The features of this game were the run to a touchdown by Quarterback Kennedy and the line plunging of the backs, Cooley, Bromley, and Holman.

The team lined up as follows: Center, Wolf; guards, Crowe, Bates; tackles, Clyde, Ensign, Finning; ends, Percival, Newton, Tufts, Larzeleve; quarter, Kennedy; halves, Cooley, Holman; full, Bromley.

Besides putting out this interclass team, the '08 class furnished most of the huskies on the big team, including Mitchell, Graff, Boxtton, Weber, Black, Johnson, Rogers, Butler, Everett, and Bell.

In fact, Naught-eight is, was, and will be the real thing.



To Naughty-nine

All hail! ye Naughty-Niners, wherever you may be,
And o'er the following pages may your eyes rove lovingly.
And ever while you're looking your heart in merry chime,
Will beat the ceaseless rhythm, "We are proud of Naughty-Nine."
We are only Sophomores, but our regrets are truly given,
We grieve to see you leave us, farewell, oh Naughty-Seven!
And in the chain of friendship we'll lovingly entwine,
Ten, Naught-Eight, Naught-Seven and Sophomore Naughty-Nine.
And in the coming years how fondly we will look
At the old familiar faces we find within this book.
And we will then be thankful that we have always tried,
For onward, always onward, and upward, 'tis our pride
To make our class when Seniors, the best in all the line,
Then work, work hard for "Good Old Lick," and work for Naughty-Nine.
—Clare Hodges, '09.

The Class of 1909

From our midst go the Seniors, the Class of "Naughty-seven," the class who organized and protected us as Freshmen and moulded us into the present Class of "Naughty-nine."

They have acted well their part and upheld the name of dear Old Lick with only a feeble support from us, and now they are going and we must take the place they held some two years ago and do unto the next year's recruits as they did to us when we were "green" and needed a leader.

Not only must the new material be fashioned into the best of Lick timber for the track, field, and diamond, the orator's stand, or the shop, but we must also help our next Senior Class add new laurels to Lick's score in all things they undertake.

Our financial support is the best in the school, and so let our every aim be. Now get *your* shoulder to the wheel and help make our spirit, our officers, our meetings, our rooting, our every undertaking the best and most enthusiastic, that in future memories the "Last of the Naughties" may be remembered as the greatest class of our school. In short, Naughty-nine in the lead *from now on!*

Slow and steady development has characterized '09 athletics from the beginning of our class history. The phenomenal success and frequent victories with which our teams have met this year clearly demonstrate what determination and grit can do for a class.



Class of 1909

Last year, our Freshman year, we had five men on the track, only one of that five making the big team. In basket ball, baseball, tennis, and swimming, the scarcity of '09 men was appalling. Our Freshman football team, however, was a credit to any class, for though light in weight, the team battled with might and main, showing remarkable strength throughout. In the Bay Counties Freshmen track meet, held on the U. C. oval, the '09 team made a close second to Berkeley High's Freshmen. Indeed, our first year may be considered successful.

Now in our second year we have placed our share in the school teams. Ralph Hupp, the crack hurdler and broad jumper, Guerin, Dearborn, and Little are notable men on the track. The way in which we defeated the Wilmerding Sophomores, who overwhelmed us in '05, only goes to prove our development in that line.

Baseball was easy when Captain Boyle marshalled up his nine and put them to steady work. They won decisively and with credit to the class. Basket ball brought more laurels to Naughty-nine. Captain Felt has kept his men in the school court at all spare moments, consequently when the team went into a game they played clean and won. In the interclass tennis, Guerin took care of the singles and, with Lawton, captured the doubles. Guerin has been our mainstay in tennis at all times.

The girls of 1909 have been on the alert also, and though they have not had the chances to cover themselves with glory, we pick them for winners when they do turn out. The majority of the school Basket Ball Team is composed of '09 girls, which speaks well for '09, but where are the other classes?

The Boat Club is the idea of a Sophomore. Many of the class belong and may be seen Saturday striving vainly to splash all the water out of Stow Lake.

As a whole, the results of all '09 competitions prove satisfactory and encouraging. When the Interclass League was organized '09 started right in training in all branches of athletics. Since then, all the teams have been trying their level best to help our class grace the cup of the Interclass League with a 1909, the highest class honor to be gained in the school. With a goodly number of our men entitled to wear block '09s and a goodly number entitled to wear the block L, we can but hope the future holds as much for us as the present and past.



The Sophomore Teams



The Freshman Class, 1910



The Freshman Teams



The Modern Air Brake

Ralph L. Coleman, '07

Without doubt every one has at some time been on a swiftly moving train, and as it approached a stopping place has undergone that somewhat unpleasant sensation caused by the action of the brakes in bringing the train to a standstill. We know that the train was stopped by the brakes, and most of us know that it is an air brake, yet the average person has a very hazy conception of what an air brake is and how it is operated. The space allotted in these columns will not permit of a very lengthy discussion of the subject, but an attempt will be made, however, to give the reader a general idea of the operation and mechanism involved in a modern air brake system. The present high-speed practice on the American railroads is largely due to the development of the air brake, and without the aid of that wonderful device such speeds would be dangerous, if not impossible. Like everything else, the air brake has a history which should not be overlooked, so let us begin at the beginning.

In the later sixties a young mechanic named George Westinghouse, while busily engaged in the exploitation of a railroad frog (which of itself was quite successful), had his attention drawn to railway car brakes, which were at that time operated by hand. He originally intended to use steam as the motive force, but fearing trouble from condensation, and being impressed with the successful transmission of power by compressed air in other machines that he had seen, he determined upon a brake to be operated by compressed air. This brake took definite form in 1868, and although crude as compared with the brake of to-day, it revolutionized railroading by greatly increasing safety of operation and permissible speed.

The original form was known as the "straight-air" brake, and consisted chiefly of an air pump and reservoir on the engine; a line of piping throughout the train with suitable hose connections between cars; a cylinder on each car, the piston rod of which connected through a system of levers with the brake shoes, and a three-way cock in the engine cab by means of which air was allowed to flow from the reservoir through the line of piping to the various cylinders to apply the brakes. After the brakes were applied they could be released by turning the three-way cock so that the pressure in the line of piping and brake cylinders was free to discharge to the atmosphere.

Although perfectly satisfactory for the service for which it was originally intended, the increase in length of trains and weight of cars soon made the straight-air brake impracticable—the greater length of train pipe and necessary size of brake cylinders increasing the amount of air required and causing the application of the brakes on long trains to be slow and uneven. But by far the most serious drawback was the imminent danger of losing the entire control of the train, through the bursting of a hose or a break in the piping.

These considerations led Mr. Westinghouse, in 1872, to devise and perfect the "plain automatic" brake, which promptly superseded the older type. In this style of brake an altogether different state of affairs exists. Instead of all the air being carried on the engine, each car is equipped with an "auxiliary" reservoir in which is stored a sufficient supply of air to apply the brakes on that car. Together with the auxiliary reservoir an ingenious device known as the triple valve is also added. The triple valve forms a connection between the brake pipe, brake cylinder, and auxiliary reservoir, and derives its name because of its threefold function of applying the brake, releasing it, and recharging the auxiliary reservoir. In this system the train pipe is normally under pressure, and any reduction in this pressure caused the brakes to be applied, whether such reduction was made intentionally or by accident.

In passenger service and on freight trains of ordinary length the plain automatic brake proved to be very successful, and although probably embodying the greatest advancement ever made in the braking art, it was found imperfect when used on long trains, in cases of an emergency or quick stop. The time required for the train pipe reduction to travel through the train caused the brakes on the forward end to apply more rapidly than those in the rear, causing the rear cars to surge forward, closing up all the coupling slack with an accumulative force which often resulted in severe shocks and damage to cars and their contents.

In spite of this slight disadvantage it was not until 1887 that the "quick action" feature was added to the triple valve, this new idea originating during a series of brake tests that were conducted by the Master Car Builders' Association, at Burlington, Iowa. The "quick action automatic" brake then gradually displaced the plain automatic, and at the present time it is almost universally used. The new triple valve caused the brakes to apply in ordinary service exactly as with the old system, but in cases of emergency it permitted a portion of the train pipe air to pass into the brake cylinder, thus greatly hastening the reduction throughout the train and proportionately quickening the serial application of the brakes; while the introduction of train pipe air into the brake cylinder increased the resulting pressure, giving a correspondingly higher braking power. With this improved apparatus it was made possible to apply the brakes on the rear of a fifty-car train in two and one-half seconds from the moment the engineer started the application on the locomotive.

The operation of the modern quick action automatic brake, though seemingly very complicated, is quite simple, the underlying principle throughout the system being the equalization of pressure. This principle can be nicely illustrated in the action of the triple valve, which, as already has been stated, is located under each car. The working parts of a triple valve consist essentially of a piston and a slide valve, the slide valve being fastened to the stem of the piston. One side of the piston is subjected to train pipe pressure and the other side is acted upon by auxiliary reservoir pressure. It is obvious that any difference in pressure between the auxiliary and train pipe will cause the piston to move. In "release" position the auxiliary reservoir and train pipe are connected

by a small groove which acts as a "feed" to recharge the auxiliary. After the pressure in the auxiliary has risen to that in the train pipe, the triple valve piston stands in equilibrium. In this position the brake cylinder is opened to the atmosphere through ports in the side-valve and seat, so that there is no pressure exerted against the lever under the cars.

To apply the brakes for a "service application," the engineer reduces the pressure in the train pipe. This leaves the auxiliary reservoir with the greater pressure, consequently the triple valve piston is moved in the direction of the lesser pressure, thus cutting out the feed groove and moving the slide valve so that it closes the exhaust port from the brake cylinder and opens the "service port" in the valve seat. By opening the service port, air from the auxiliary reservoir is free to flow into the brake cylinder, thereby forcing its piston and rod against the system of levers under the car. The air continues to flow to the brake cylinder until the pressure in the auxiliary reservoir is slightly below that in the train pipe. At this point the valve "laps," or, in other words, the service port is closed by a slight movement of the piston toward the auxiliary reservoir pressure. The triple valve piston now stands in equilibrium with the brakes applied. Any further reduction of the train pipe pressure will again open the service port, or if the train pipe pressure be reinstated, the triple valve piston will move to release position, thereby discharging the pressure in the brake cylinder and recharging the auxiliary reservoir.

In an "emergency" application the pressure in the train pipe is reduced suddenly, either by the engineer or through some other cause, such as the parting of a hose coupling. In this case the triple valve piston is forced to the extreme end of the bushing, allowing the slide valve to open the "emergency port" in the seat. This forms a direct opening from the auxiliary reservoir to the brake cylinder and the pressure equalizes. In the emergency position the slide valve also opens a port in the seat, which operates the quick-action feature of the triple valve. This feature consists of two check valves so arranged that when an emergency application takes place train pipe pressure is made to flash into the brake cylinder before the pressure from the auxiliary reservoir can reach it. This additional pressure from the train pipe not only raises the final brake cylinder pressure, but also reduces the pressure in the train pipe sufficiently to cause the triple valve on the next car to go into quick action.

Now that we have an idea of what takes place on a car during the application of the brakes, we will next investigate the apparatus on the locomotive and see how the brakes are applied and released. The foundation of the air brake system is the air pump which is bolted to the side of the boiler. It somewhat resembles a steam water pump turned on its end and about the same principle of operation exists in both. The air that is compressed by the pump passes directly into the "main reservoir," which is located generally on the lower part of the engine. The main reservoir is a storehouse, as it were, from which the auxiliaries on the cars get their supply of air. The main reservoir carries a pressure which ranges, according to service, from ninety to one hundred and

forty pounds per square inch. The pump is controlled by a governor which automatically stops the pump when the pressure in the main reservoir has reached the point for which the governor is set, that point being about twenty pounds in excess of the pressure that is carried in the train pipe. When the pressure in the main reservoir falls, the governor starts the pump. The idea in carrying the "excess pressure" is that when the main reservoir and train pipe are equalized, the resulting pressure will be sufficient to release the triple valves.

A pipe leading from the main reservoir connects it with the "engineer's brake valve," which is a device that the engineer uses to apply and release the brakes. The brake valve handle moves the valve through five different positions, namely: "Release," "running," "lap," "service," and "emergency." The brake valve is also directly connected to the train pipe. In order to release the brakes the engineer moves the brake valve handle to release position. This connects the train pipe with the main reservoir, thereby moving all the triple valves to release position, and recharging the auxiliary reservoirs. Since the main reservoir carries a pressure twenty pounds in excess of that in the train pipe, in order to keep the train pipe from being overcharged the brake valve handle must be moved to running position after the brakes have been released.

In running position ports in the brake valve connect the train pipe with the main reservoir through a "feed valve," which is really a regulator valve, keeping the pressure in the train pipe and auxiliaries up to the required standard, while the pump is now free to pump up the excess pressure to be carried in the main reservoir.

To apply the brakes for a service application the engineer moves the brake valve handle to service position. In this position the train pipe pressure is gradually reduced through an equalizing discharge arrangement in the brake valve. After the train pipe pressure has been reduced sufficiently, according to the judgment of the engineer, the handle is then moved to lap position. In this position the reduction is stopped, but can be started again by moving the handle once more into service position. As already explained this reduction of train pipe pressure causes the triple valves to apply the brakes, and when the brake valve is on lap position the triples will also lap.

The emergency position of the brake valve is used only in cases of emergency. With the brake valve in this position the ports are so arranged that the train pipe pressure is in direct communication with the atmosphere, causing the triple valves to go into quick action. In cases of emergency, it has been found that by sanding the rail with the brakes set in emergency that the train will stop in a shorter distance than if the engine had been reversed.

In high speed practice the pressure carried in the train pipe and auxiliaries is usually one hundred and ten pounds per square inch. With the train moving at an ordinary speed the high pressure introduced into the brake cylinders would doubtless slide the wheels. In order to overcome this difficulty a reducing valve is connected directly to the brake cylinder which automatically reduces the pressure in the brake cylinder as the co-efficient of friction between

the brake shoes and wheels increases. The high speed brake represents the most recent development in that field of invention. It has been installed on all fast passenger trains and has made train control safer at higher velocities. With the high speed brake it is possible to stop an ordinary passenger train running at seventy miles per hour in fourteen hundred feet.

Besides being used on steam roads the air brake has been put into service on electric roads also. Nearly all modern electric cars are equipped with air brakes. When used in a train such as interurban service, the automatic brake is used and is identical to that used on the steam roads, except that the steam-driven pump is replaced by an electric air compressor, controlled by an electric governor. In the street car service the straight-air brake is used, the "motor-man's brake valve" being nothing more than a three-way plug valve, through which air is allowed to flow from the reservoir to the brake cylinder to apply the brake, and from the brake cylinder to the atmosphere to release it.

In the higher speeds that are to come in the distant future, the air brake will play its part. It is largely due to the air brake that New York and Chicago are but twenty hours apart, and were it not for the air brake many of the scenic routes over the Rocky Mountains would never have been attempted. In closing it seems appropriate to call the reader's attention to the Westinghouse industries, the rise of which is entirely due to the invention of the air brake. In 1868 George Westinghouse was a poor mechanic; at present he is one of the few honest captains of industry, and the name "Westinghouse" is seen in every country on the globe.

Thoughts

Have you ever sat on the sand by the sea
And watched the waves space "the time that flies"?
Have you ever thought how your life flows by,
As you sat on the sands by the sea?
Each grain of sand is a year of life,
We hold in our hand the lives of a score.
Each grain of sand is a thousand years
In the hourglass of the great unknown.
Oh! have you never thought as you sat by the sea,
Of the difference of Life and Eternity?

F. J. Finnegan, '08.

Scotty

It all happened in a queer way, and all about Scotty. Scotty was a brown dog, the pride and mascot of Fairfield High School. Never was a dog so petted and spoiled. In the opinion of Fairfield, nothing was too good for Scotty. The dog, seeming to understand his high station, took all the petting as a matter-of-fact occurrence. How else should he, the school mascot, be treated? It was nothing but right. But a dog must have one boss, and that was no doubt why Scotty always followed the football captain so closely. The two were always seen together—the big, husky captain and the little brown dog—and people expected it—it was right for Scotty to think most of Parker, for it was Parker who found the trembling little dog on the street corner one cold morning, and it was he who brought the little waif to school.

They were in the class room together one afternoon, Scotty and Parker, with the yell leader and some football men. Of course the boys were talking about that game, the great final game that was coming. If they won they would get the trophy, Scotty would get a new collar with his name on it, and if they lost—they did not often talk of that, but they thought a great deal. They knew what a close game it would be and they smiled grimly. Hillside had always been their rivals, but excitement had never been at such a high pitch before.

And so they talked again of the game. Scotty, lying near the captain's feet, seemed listening, too. Parker was thinking while the rest talked and so, perhaps half consciously, he put his hand on Scotty's collar and unbuckled that plain strip of leather from the dog's neck and Scotty looked into the captain's eyes but received no attention. Parker drew out his pocket knife and busied

himself trying to carve F. H. S. into the collar. He had dug those letters into all the desks he had ever sat in and now, while he listened to his team, he thoughtlessly carved them again. But leather does not yield nicely to a knife, and it was not a very neat piece of work that the yell leader at last called the boys' attention to.

"Parker, you've cut clear through that collar. Scotty'll break that without half trying."

"When's he going to get the chance to try? Here, Scotty, I guess this'll hang around your neck. Now you fellows stop bothering me, can't you? If you can't, get out of here. I don't feel like talking." And he thrust his hands into his pockets and was silent. The team soon left him. They knew their quick-tempered captain well. It was always best not to bother him—and yet they liked him so.

The days passed on quickly until the day of the game. Scotty, lively and excited, was everywhere, now with the captain, now with the yell leader, but as they hadn't time to pet him, he went out into the street to try to find someone he knew. In the next block he saw the familiar faces and blue sweaters of some of the Fairfield boys. He started after, then he lost them. He shook the big blue bow on his collar and gave a short, sharp little bark, but no one whistled for him, so he started back toward the school. Suddenly some boys close behind him yelled: "Here, fellows, here's their dog," and ungentle hands were laid on that blue bow. The boys in the red Hillside sweaters talked hurriedly together a minute, then, just as the Fairfield football team were boarding their car for the grounds, the Hillside boys snatched Scotty up and went in another direction, and a minute later the car full of boys came by and Captain Parker was saying: "We can't lose with Scotty, fellows."

"Where is he?" asked one of the team.

"Guess the rooters have got 'em," was the answer. And the car passed on.

Meanwhile Scotty's captors were debating what to do with the dog, now that they had him.

"We're way out of our way now," said one, "we'll have to hurry to get to that game before it begins."

The boy holding Scotty put him down. He wasn't such a small dog nor such a light weight, but they found it was better to carry him than to have to pull him through the streets, and Scotty, after the first surprise, allowed himself to be carried. Scotty was equal to anything.

"Say! I knew what we can do, we'll start for the game and we can leave their dog tied in that old house or lot on the other side of the grounds. Nobody passes there," said one, and they picked Scotty up and were off.

At last, by rather a circuitous route, they arrived at the lot. There was an old unused house there. The window glass had long been gone and the boys were soon inside. A rope was hastily slipped through Scotty's collar and the other end made fast to an old table, then the boys, well pleased with themselves, departed, and Scotty was alone. He did not understand it all, so he put his

head on his paws and dozed. At last he was aware of hearing the yells of many voices come to him from the distance. Two silky brown ears suddenly pricked up, two brown eyes were opened wide, and Scotty listened while from the distance came the yells he loved so well.

At the field an excited crowd was on the bleachers waiting for the game to begin. Captain Parker looked over to where the blue pennants waved, but he noticed them not; he was looking for a little brown dog with a big blue bow. But he saw none, so he went over to the bleachers.

"Say! You fellows got Scotty up there?" he called.

The yell leader's face suddenly grew sober. "No," he said, "Scotty didn't come with us. Thought you'd brought him." He seized a megaphone and turned to his rooters. "Any of you fellows seen Scotty?"

The boys were silent. Not one knew of their mascot.

Captain Parker turned sullenly away. "We can't win now," he said, bitterly. It was not superstition that prompted him to say it. Parker scorned superstition, but he felt that his team could not play without their pet, and he stood thinking until the coach called to him.

The team heard of their loss before Parker expected them to, and it was a moody, disheartened eleven with a sullen, angry captain that began the game.

The end of the first half found Hillside with four points to Fairfield's zero, and the boys in the blue sweaters sat dejectedly to one side. Even the rooters lacked their customary spirit. Then the game began again and Fairfield was forced farther and farther from that line that they wanted to cross. Only a few minutes more, thought Parker, as they stood for a moment by a fallen comrade. Then suddenly he started and looked up. He had heard a bark; a sharp, joyful bark; and a little brown dog rushed up.

Scotty rushed across the field toward him, but in another second the game was on again.

The rooters with one accord yelled "Scotty," and with a rush all their spirits returned and they yelled for their team, their captain, and their mascot. The team heard and it gave them new strength. Oh, how they played! for near the side line ran a little brown dog, barking furiously and seeming to coax them on, yard by yard. As they neared that goal, that they wanted so much to reach, Scotty rushed forward, just beyond the goal posts, where he stood trying his best to make them come. A minute later there was a rush, a cloud of dust, and something between the goal posts. The dust settled and the object revealed itself to be a man in a blue sweater, and in his arms was a ball and an excited brown dog. But whether it was the captain, the dog, or the ball that made the touchdown it was hard to tell, but Fairfield had won and their rooters broke loose in a yell for their captain and their mascot.

CLARE HODGES, '09.

La Pierre

By Ashleigh B. Simpson, '09

There were four or five of us young fellows who used to be well acquainted with La Pierre. After school hours we would generally flock to his little front porch and *anon* he would spin some long-forgotten tale of France in the old days. He was a characteristic French gentleman with a typical pointed beard and twisted mustache, white as snow from the drift of time.

In the last few years we had not seen or heard much of La Pierre or of each other. The college graduation had put a stop to many things and started many others. Then came the April disaster and a year of the hardest work I shall ever want to experience. April, 1907, was a busy one for me, and little thought I cast on the coming anniversary. However, when the eighteenth came around I knocked off work and made up my mind to traverse what had been the burned district, to get a line on what one year had done for San Francisco.

I strolled up Nob Hill after a dusty afternoon spent on Market, Mission, Kearny, and Powell Streets. The new school of art was on my left and the ruins of the Flood mansion on my right. Idly I gazed from one to the other, when a familiar voice addressed me:

"Well, *mon garcon*, a change, eh?"

"La Pierre, of all people, where? When? How?——"

"Tut, tut! as hasty as ever." Then the old Frenchman grasped both my hands and asked that I should dine with him.

"Willingly, *monsieur*," I replied, "for an exchange of experiences on this anniversary will be *apropos*." He took my arm as he was wont to do in the old days and we sauntered in the direction of a fashionable eating place to his liking. Not until we were comfortably seated, dined, and wine, did La Pierre unfold himself to me. During the first course of the meal I had rattled off my history of the past two years. Not until the waiter had brought coffee and cigars did the old gentleman of France settle himself for his yarn.

"It may amuse you, *mon garcon*, to learn that I was not burned out, lost nothing, and am living as usual. My adventures are wholly included in the last statement. But by the look on your countenance I readily see I must forage for some tale to interest you with. Well, *monsieur*, the fates are at my disposal, or rather coincidence favors us both, else there would be no story to-night. This, the 18th of April, marks a double anniversary for me, one sadder than the other, the first away back in 1860, the second but a year ago, and not nearly so significant as the first. When I was in my twenties, as you are now, *mon garcon*, I lived in Gampeaux, a small village in the south of France. My father was a nobleman of high rank, but what was rank in a republic? The life of France had dwelt in the sword and they had broken that off at the hilt. My

father's income was from a source unknown to me, nor did I question it. We lived luxuriantly, even extravagantly. I had the best education a boy could wish for, perhaps a deal more than was good for me. The blood of a warrior was in my veins and adventure was the keynote of my ambition. But the days of chivalry were over and dueling was a crime. So I rowed, hawked, fished, and did countless other things as a diversion. Social life had never appealed to me, so, to my father's regret, I was not the pride of his parlor, rather a boor of etiquette, as he expressed it in heated arguments with me. This went on and on, but youth must ever find diversion, and mine came, as is usual in such cases, in the form of a girl. It was the old-time episode of beauty in distress. I was the hero-rescuer, and she—well, in less time than it takes to tell I managed an introduction and was delighted on finding her a gentlewoman of high lineage. Oh, *mon Dieu*, how busy I became! I must learn to dance, to sing, to play, and to talk. My father's delight at such manifestations was akin to insanity. Festivities were to be arranged by him, for he was a social leader. Private tutors coached and drilled me for the next six months till our home became a veritable academy. Then I made my debut, as we might say, and in another year was a suitor for my lady's hand. Then came my rival, but ah, monsieur, she favored me and not him. He was of low birth, an upstart with a purchased lineage. His means were foul, indeed, *mon garcon*; he would fight me on my wedding day, and that, monsieur, was on the 18th day of April. My lady begged me, pleaded with me, to refuse him, but my blood was on fire. I could not act the coward. My lady was well-nigh frantic with distress. The scene between us was far too sad to relate. We parted, words of courage on my lips, tears of distress in her eyes. Alas! my opponent and not I was the coward, for, monsieur, I was shot in the back and left for dead. After hours of blackness I groped painfully home, weak from lack of blood, home to my wedding, *mon garcon*, to my lady. No lights shone in the house that night—no warm welcome for me."

La Pierre paused. I did not speak. Tears welled to the old worn eyes and trickled down the wrinkled cheeks. Then he spoke:

"There was no wedding that night of the 18th. My lady had died by her own hand, died of grief, for they told her I was killed."

And a Tooth for a Tooth

By Arnold T. Brown, '07

To those who had known him before, it was hard to connect the haggard, gray-haired, scantily clothed man of thirty, with Henry Clayton, as he had been ten years before. Then he was healthy looking, his features were clear cut and strong, his hair had no tinge of gray, and his clothes bespoke a man of money. Handsome, well-educated, and genial in conversation, true to his friends, and honest in all his dealings, he had come to be honored and respected wherever he was known.

The death of his father and mother had left him in possession of over two thousand acres of rich farming land in the Sacramento Valley, situated on the banks of the river. His entrance to majority had given him a right which he had long been waiting for, the right to take to his home as a bride she whom he thought was the dearest, sweetest thing in the world.

Yes, indeed, life looked bright to Clayton. And then—then from somewhere came proof that a Mr. Williams had obtained legal possession of an old Spanish grant, which gave him possession of a large quantity of land in the vicinity, among which was that belonging to Clayton. The fight in the courts was short and bitter. The bitterness always present when one party seeks to obtain possession of another's home was increased in this instance by the fact that Mr. Williams was an old time enemy of the Clayton family, the feud dating back to the Civil war, when the elder Clayton, in command of a brigade of northern troops, had completely routed twice the number of Southerners under Williams, the fight ending in the capture of the latter.

But the fight was short, as the deed held by the plaintiff was clear and indisputable, and Clayton was forced to relinquish his title to that property which had been his home for nearly twenty years. The new owner so gloated over his victory and spoke so disparagingly of his opponents, as to cause blows between himself and Clayton. The contest was overwhelmingly in favor of the latter, until the arrival of two sons of Williams changed the looks of the encounter, and Clayton had emerged from the fray so thoroughly battered up that he had sworn to get revenge, one way or another.

Then for a time things went on smoothly, Clayton took up his new life of actually earning all that he needed to live on. It was a bitter struggle to one so accustomed to ease. But grit and character and health were on his side and he started in manfully to make a home for himself and his bride to be.

He saw little of his sworn enemies, but whenever he did his hatred was outspoken and his desire for revenge was so great that no one would have been surprised to see him take any method of harming them. Then, at a time of the year when the water of the river was so low that accidental breaking of the

levee was impossible, one section of the embankment gave way suddenly one night. The property of Williams was inundated, the crops were destroyed, and the rush of the water had dealt death to one of Williams' sons.

Of course the arrest of Clayton followed, and he was charged with murder. At the trial the evidence of the prosecution was straightforward and clear. It was proved that at various times the defendant had expressed a desire for revenge against the deceased; that he had actually been seen by three reliable persons hanging around the place at which the levee later had given away. Further, on the night in question, the sheriff of the county had seen him hurrying away from the place. The sheriff had stopped him and spoken to him, and he swore that Clayton was at that time nervous and excited. Furthermore, Clayton admitted that he had been there. He denied his guilt, but could not explain his presence there, his defense resting on his previous character and reputation. But proof of his guilt was so obvious, that the jury returned a verdict of guilty of murder in the second degree, carrying with it a sentence of ten years in State's prison. Ten long, weary years he spent behind the bars in a cell with three other criminals, a place reeking with dirt, filth and vice. Ten long, weary years, and then, in the summer of 1906, he was released, broken in health and spirit, haggard in looks, and but a shadow of his former self.

Meanwhile he had always been protesting his innocence, and he returned to his former residence with the avowed purpose of finding out who was the guilty one. But life was hard for him. He had lost the confidence of his friends, and it was impossible for him to get a responsible position. He took odd jobs as they came along, and eked out a lonely existence, always brooding over the wrong that had been done him. He still loved the flower of his happier days, but he was too downcast and fearful of ever seeing her, or of even finding out what her thoughts in regard to him were.

And so the summer, autumn and winter wore away and the earliest traces of spring began to appear—spring, that harbinger of brightness and luck.

And with the coming of spring, things changed. By chance, one day, he found out something that he could prove before the world. It was proof that he was not guilty of that crime for which he had spent a decade in prison. And following right upon this came the news that his love was still waiting for him; trusting, believing and waiting.

Made welcome by these two bits of news, life now held different prospects for him. First—so his thoughts ran—he would submit to the world the proofs of his innocence. His innocence once established and his reputation refounded, responsible positions would again be open to him. A few years of toil, and then a home for him and his.

And so things went on. February, with its host of rains passed, and March with its added deluge came.

History need not be repeated. It is known to all how the rain poured down for weeks—weeks of rain with hardly a sign of clear sky. And how the interior rivers, naturally high from the fall and winter rains, were so swollen

and increased, that levees broke, and farms were deluged and lives lost. It is needless to tell of the many heroic efforts at salvation, or of how gangs of men worked hard, hard for hours at some weak point, only to find human efforts vain, and finally seeing the bank give way, making it necessary for them to flee for their very lives.

The damage done was something awful. Far, far as the eye could reach, was seen nothing but water, with here and there the wreck of a house or barn, and sometimes, seldom and lonely, some single farm, whose luck it had been to escape the destruction. A few such farms had been saved, a few homes rescued.

Among these was the former home of Clayton. Its levees, built on solid engineering principles, and the immense amount of repairing that had been put upon it the season before, had so far prevented its destruction.

Amid such daily scenes of ruin and desolation, it is only natural that Clayton's thoughts should have turned toward his former home; it is not to be wondered that, after days of labor in the attempt to prevent more destruction, he should take a skiff, and wandering along the banks at night, he should wonder at the ways of fate and the strangeness of it all.

One night in the middle of March he was, as usual, wandering aimlessly along the levee, when he noticed a small stream of water trickling through a seemingly strong section of the bank. Filled with the prevailing spirit of salvation, he immediately set to work to plug up with earth and mud. The leak, larger than he had thought, so monopolized his attention that he did not notice that not more than a hundred feet from him another break had started and gained considerable headway. It was not until a gap two feet wide and two or three feet deep had been formed that the rush of inflowing water told him of the break. Being too large a hole for one man to fill with earth, he followed the only remaining course. Disregarding all thought of personal danger, he himself got into the gap and filled up the spaces remaining between himself and the bank, with mud.

Buried up to his waist in mud and water, he stayed there for several hours, too much engrossed with the task of saving the property to notice that his limbs were stiffening and growing cold. Suddenly realizing this, and also the fact that to stay there much longer meant death, he began to think what he should do, whether he should stay and save his enemy's property at the risk of his own life, or whether he should leave the land to its fate and, saving himself, declare his yet unproved innocence to the world. After a long debate in his mind, he decided on the latter course. But several hours in the cold had weakened and exhausted him. Try hard as he could, he found it impossible to move his body one way or another. So, feverishly he worked at the task of extricating himself. He tore up a little earth in one place, and some more in another, always leaving just enough so that the water would not burst through and carry him along with it.

At last the preliminary work was done. Using all the strength in his numbed limbs, he cautiously drew himself up, inch by inch. Just as he was about

loosened, he looked down and saw the water trickling through the small opening he had made. He saw the volume of water grow little by little, always increasing, increasing.

His futile brain drew itself a comprehensive picture of the vastness to which this little stream could increase. He pictured to himself the hole growing larger and larger, the rush of water increasing in like ratio; he saw his former home destroyed. Destroyed—because he did not have the manhood to risk his life to save it.

And then the thought of his innocence of the former crime charged to him came to his mind. What if he was innocent of it? What difference would it make if he left this property to its fate? Wouldn't this make him just as guilty as if he himself had started the leak? No, he must stay there, he must stay!

Once again he settled himself back in the hole. Once again he piled the mud around him. Then he settled down for a long, long wait. As he stood there, he gazed at the sky. He saw the clouds start to break. Slowly but surely they decreased and lessened in volume, until patches of blue sky, intermingled with stars, appeared.

Hours passed on. He saw the darkness of the sky give way to a faint tinge of brightness in the east. His body was now totally numb and feelingless. Even his brain was numb.

Just faintly his exhausted mind realized that the bank was giving way, just faintly he felt the inrush of water as it poured through the gap. He felt himself borne along by the volume of water—borne along—and then oblivion.

* * * * *

For the first time in weeks the sun rose upon the scene of desolation, a destruction increased in the previous night by over two thousand acres being added to the picture. The owner of this land, lately given over to destruction, was sitting idly in a skiff with his son, viewing the disaster, when the lifeless body of Clayton was washed up to him.

With an oath the old man arose, and shaking a fist at the form, he cried out: "Now I know what made our staunch levee collapse. It was that scoundrel at his old tricks again. It was he who, for the second time, broke our levee and destroyed our land."

With another oath he turned from the form and rowed away.

Moving Pictures

Malcolm W. Steel, '10

The moving-picture machine has become familiar to everybody since the Columbian Exposition at Chicago in 1893. This machine, although not the first, was thought to be the most marvelous invention of the times. Its forerunner is a toy invented many years ago, called "The Wheel of Life," based on many experiments in the science of optics. It is a small cylindrical box about ten inches in diameter and six inches in height, arranged to turn on a pivot in the bottom. On the inner side of the box is a series of pictures, each one further advanced in the stage of motion than the one before it. Opposite each picture is a slit in the side of the box. When whirled rapidly the figures appear to move as in real life, although greatly exaggerated.

Many experiments followed in the form of a long strip of pictures passing before a lantern with a shutter with which to cut off the light as a new picture was moving into place. This machine was not used much, as there was no camera yet invented that could take pictures fast enough. With the development of the dry plate and transparent film, Thomas Edison invented the kinetoscope, which took a series of photographs on long strips of films at the rate of thirty a second. Since the invention of the kinetoscope experiments have been made to improve upon the machine for taking the photographs more rapidly and evenly.

The long strip of film, which varies in length from seventy to a thousand feet, is wound upon a spool and placed inside of the machine which is to take the pictures. The lens is made to open as the strip stops for the fraction of a second to get the exposure. As the film moves on for another inch it again stops and the lens is again opened. By the delicate mechanism employed, as many as a thousand pictures can be taken in a minute.

When the film is completed the thousands of pictures are developed on the original roll and printed on rolls of celluloid films covered with gelatine. The pictures are now ready to be thrown upon the screen. They are passed through a lantern which has a powerful light, produced by an electric arc. This machine also has a shutter which automatically opens when a picture comes directly in the path of the light from the lantern, and closes when it passes on. Moving at the rate of about fifteen a second, the pictures appear to be in real life upon the screen, but in a slight jerking motion. This is caused by the imperfections of the mechanism, but they are steadily improving. With the phonograph to preserve voices and the moving-picture machine to preserve great events, many phases of the world can be recorded.

Editorials

THE TIGER is published quarterly by the students of the California School of Mechanical Arts (founded by James Lick), at Sixteenth and Utah Streets, San Francisco, Cal. Entered as second-class matter at the Postoffice in San Francisco on August 22, 1904, according to Act of Congress of March 3, 1879.

The Staff

W. EDGAR RANDALL	-	-	-	-	-	-	-	-	-	Editor
LESTER C. UREN	-	-	-	-	-	-	-	-	-	Manager
Arnold T. Brown	-	-	-	-	-	-	-	-	-	Literary
Ashleigh B. Simpson	-	-	-	-	-	-	-	-	-	Exchanges
Ernest Thompson	-	-	-	-	-	-	-	-	-	Athletics
Lester Thompson	-	-	-	-	-	-	-	-	-	Athletics
Ada Roos	-	-	-	-	-	-	-	-	-	Athletics
Clinton Allsopp	-	-	-	-	-	-	-	-	-	Shop Notes
Ralph Coleman	-	-	-	-	-	-	-	-	-	Shop Notes
Romer Shawhan	-	-	-	-	-	-	-	-	-	Joshes
Ralph Ensign	-	-	-	-	-	-	-	-	-	Joshes
Henry Mikkelsen	-	-	-	-	-	-	-	-	-	School Notes
Lou Knell	-	-	-	-	-	-	-	-	-	School Notes
George L. Payne	-	-	-	-	-	-	-	-	-	Assistant Manager
Fred Hornick	-	-	-	-	-	-	-	-	-	Assistant Manager
Paul Miller	-	-	-	-	-	-	-	-	-	Assistant Manager
Willard Beatty	-	-	-	-	-	-	-	-	-	Artist

The Bear

With this issue, THE TIGER makes its last appearance of the year. We deem it, on the whole, a profitable one. The little problems have been worked out, the training of the year has been a preparation that will be held invaluable to many of us. Those of us who are underclassmen have plenty to do, and those who leave old Lick this year have perhaps more. But to whatever we may turn, we will all keep a soft spot in our hearts for the memory of this year at Lick "after the fire." For, with all its trials, it has been a privilege to attend school in these times and we feel grateful for its enjoyment.



Editor



Manager

We feel that a word must be said of this commencement issue of THE TIGER. As most everyone knows, we depend mostly upon its value as an advertising medium for our revenue. During the last three months there has been a great drop in the pulse of the advertising public. Conditions will, of course, right themselves in a short time, but the fact remains that it has been our misfortune to make ready this paper during the weeks that were the hardest. The telephones of the city were tied up by the operators' strike, the street cars were stopped by the platform men's strike, and THE TIGER has not yet been able to purchase an automobile for less than seven or eight dollars; riding was therefore out of the question. But the printer was at the east end of town, the photographer at the north, and school away to the south, and there were things that had to be looked after at each place, so it has not been an unmitigated joy to get this issue off the press.

We wish that we could afford those pages to more fully describe the shop notes, the exchanges, and give a greater space to student story work, but circumstances do not allow it. We feel, however, that we have produced the best that was possible in the existing state of affairs. We place this paragraph here not as an apology, but as an explanation due our patrons as well as the Student-Body.

Floral

During the past year almost everyone has remarked upon the air of beauty and freshness around the old Lick Bench due to the pot of blossoms that has daily graced its sturdy ruggedness. THE TIGER takes this opportunity to extend the thanks of the students to the donor, Mahlon Sweet, '07. Some, less public spirited than he, would never have troubled themselves with such a burden, just because they had access to a garden. Sweet, however, saw where these flowers would do the most good, and we thank him for having taken it upon himself to add that touch of beauty and fragrance we have so much enjoyed.



The Staff

Cross-Country Running

This last year, the Academic Athletic League of California held its first "cross-country run."

A permanent cup came into the school from this race, and now adorns a cosy-corner in the cup case.

We hope to be able to hold this cup, not only as a prize which was worked for hard and won fairly, but also as a relic to the memory of an unsuccessful venture, for we most sincerely trust that cross-country running is a thing of the past in the high schools of the A. A. L.

As far as can be learned with the aid of the opinions of the best coaches in this State and from the standpoint of the high schools themselves, these cross-country races do not belong to high school athletics.

From the standpoint of the athlete: They totally unfit a person for any of the A. A. L. track events. After one of these strenuous struggles the competitor feels the effect of it for at least a month, and they are far too great a strain for undeveloped and growing youths. Being almost entirely a test of grit, a long-drawn fight, just to see how long side-aches can be endured, it is more than probable that before many such races were run some team would have among its number a gritty, never-give-up fellow who, having a weak heart, or at least one that was not the strongest possible, would simply run himself to death rather than quit. To anyone who knows, this is a likely occurrence.

From the spectator's point of view: The race would always have to be run off in some out-of-the-way place; no seats, no chance for school rooting or other school-spirit manifestations. No excitement at all to see a bunch of fellows start down the road on a dog trot. Then a mad scramble for cars, carriages, bicycles, and footpaths, to get out to the finish, and then if fortunate enough to get out there on time, nothing unusual to see when you get there. The men in nine cases out of ten would come in as they did last time—straggled out one by one, and after the first eleven or twelve would come through, the crowd disperse and the remaining fellows stagger in unwatched and forgotten.

From a manager's point of view: These meets, when run off the way the last one was, are quite an expense and there would never be a chance to have any gate receipts to help defray expenses. Accommodations for the athletes in such far-off places are hard to procure, and all arrangements are difficult and unsatisfactory.

Yes, we say again that we hope we will hold this cross-country cup for many years as a relic of a short-lived, unsuccessful venture.

The Student-Body

The close of this semester witnesses the completion of the first year of the Student-Body. It is the first year of real organization and we trust, for the sake of old Lick, that the years to come will be as successful. Never before has the spirit been better, or more patriotic. The organization has made the inter-class rivalry subservient to the general feeling without at all holding back the idea of "Sophomore spank the Freshman and Freshman run away." In fact, under the guidance of the Board of Control, the Inter-Class League was given a firm footing and mismanagement of inter-class contests is a thing of the past.

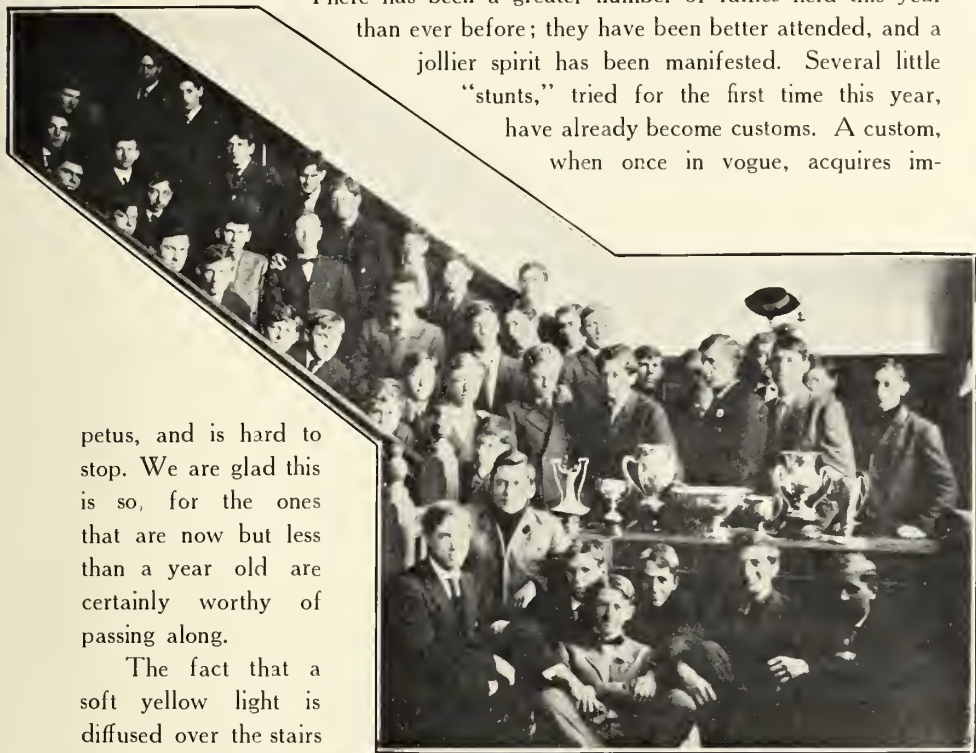
There has been a greater number of rallies held this year than ever before; they have been better attended, and a jollier spirit has been manifested. Several little "stunts," tried for the first time this year, have already become customs. A custom, when once in vogue, acquires im-

petus, and is hard to stop. We are glad this is so, for the ones that are now but less than a year old are certainly worthy of passing along.

The fact that a soft yellow light is diffused over the stairs during a rally is an excellent help to every speaker. Receiving the Block "L," medals and trophies over the historic Lick Bench is another innovation of this year that will live as long as the Student-Body.

Some of these advantages are contained in the Constitution. One of them is the quarterly posting of reports from the secretary and treasurer of the Student-Body. To see how well the present officers have performed their duty needs but a glance at their reports.

Secretary Walter Carrick and Treasurer Gustav Witte have certainly covered a year's duty. Keeping the accounts of the entire Student-Body is no joke and the reports tally to a cent.





President Ernest Thompson

But above all stands the work of Ernest Thompson, President of the Student Body. Not only did he help think out and plan improvements and changes that were needed, but he has also been the one to see them completed. We feel that it is due in a great measure to his efforts that these things have been carried on, to say nothing of the general effect of his congenial and forceful personality as a presiding officer.



Gustav Witte

Romer Shawhan

Walter Carrick

Officers of Student Body



The Board of Control

The Camera Club.

The Camera Club of the California School of Mechanical Arts was organized in the spring of 1904. Its purpose is to encourage and advance amateur photography among the students in a social as well as instructive manner. Any member of the student body can become a member of the Association if he or she has an average report card and a kodak or camera.

The Association has its own dark room in the school and this room is most conveniently arranged so as to give the best results when either developing or printing. The dark room is well fitted with electric lights, both white and ruby. It also has gas fixtures, so that the members can use the room before the electricity is turned on, or after school hours when the dynamo is stopped. An electric fan keeps the room at a desirable temperature.

Trays and the very best and latest materials, acids, developers, fixing baths, etc., are furnished by the Association for the uses of its members.



Photo by Zipf

Awarded First Prize in Camera Club Contest



The Club

The Club has recently obtained, with great difficulty, a fine enlarging camera that enables any person (no matter how unskilled) to enlarge a very small negative to a large print that may be framed. This camera is at the service of the members, and those who wish to make one or more enlargements can buy from the dark-room committee, at cost, as few or many sheets of bromide paper as they wish.

The Club gives outings, launch rides, excursions, and other good times that enable the members to enjoy themselves, as well as giving them many good opportunities to take pictures. During the winter months when outings are impossible, the Association gives a few theater parties that keep up the interest and help liven the school year.

There are about forty members in the Club at present, some boys, some girls; some from each class, from Freshman to Senior.

OFFICERS.

Geo. L. Payne, '08, President; Miss A. Roos, '07, Vice-President; C. Boxton, '08, Secretary; A. Morbio, '08, Treasurer.

DARK-ROOM COMMITTEE.

Miss Bertha Knell, '09; L. Uren, '07.



Photo by Padilla

Awarded Second Prize in Camera Club Contest

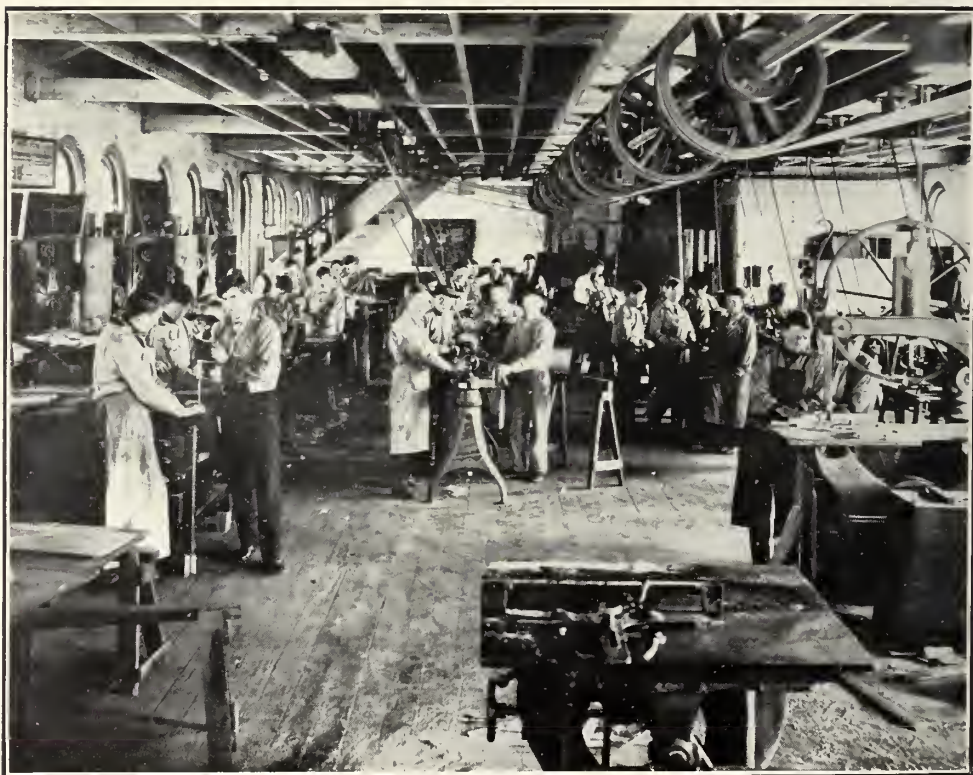


Mechanical Drawing

One of the most interesting pieces of work that has been done in the drawing room for some time is at present in full swing. It consists in the designing of a thoroughly up-to-date automobile. All the apprentices are taking part in this work, and much interest is being manifested. The leading features and dimensions have been taken from a collection of catalogs representing the different makes of automobiles. In this way the new car will embody the foremost ideas of the best types of machines that are made.

Pattern Making

Up in the pattern shop work has been progressing smoothly and many nice specimens in the shape of patterns have been turned out. At the end of the third quarter McLeran was somewhat handicapped by losing both of his apprentices. Fred Canham accepted a position with A. Haas & Co., a local pattern-making concern, and Herald went to work for the Pinole Powder Works. Before leaving Canham finished the patterns for the new 4"x6" hoist, which is of a more compact design than the former hoists that have been built.

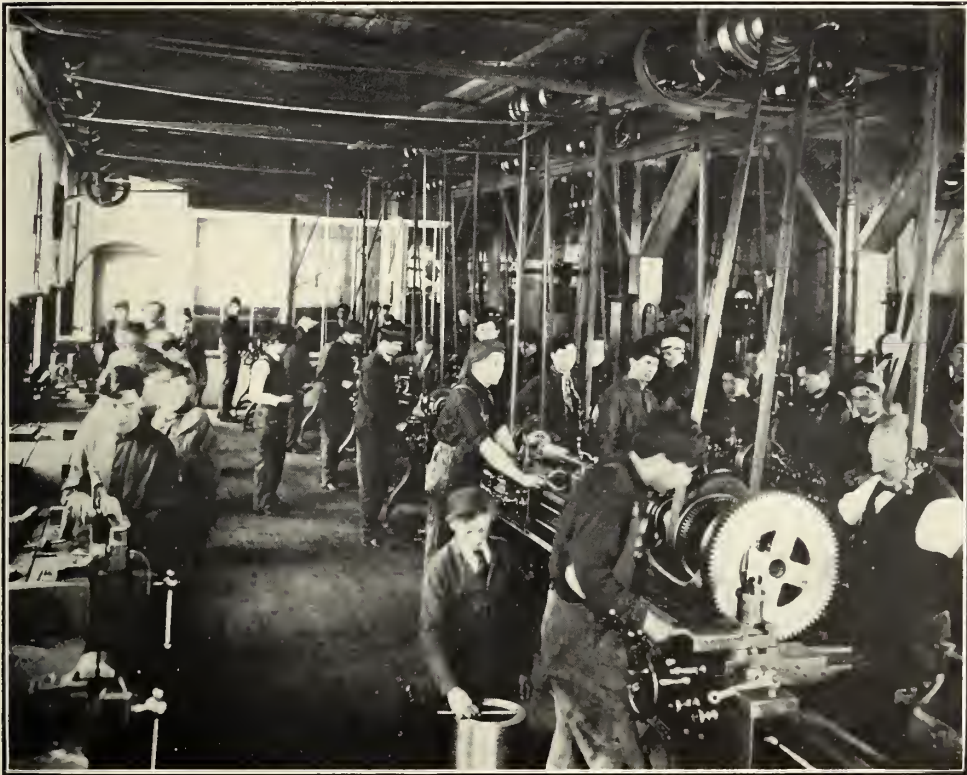


Foundry

Quite a little interest was shown in a number of ornamental castings which recently left the foundry to be used in decorating the front of one of San Francisco's new buildings. A casting for a large head stock was also lately turned out. During the past quarter-term about twenty tons of iron have been poured.

Machine Shop

In this department apprentices are more numerous, and at present quite a good deal of large work is being done. During the year the machine shop apprentices have handled a great amount of repair work. This class of work has been occasioned somewhat by local conditions, and though the different jobs have been more or less small it has given the machinists a chance to learn how to "take hold." Besides the repair work, a sensitive drill and several pipe machines were built early in the term. A number of double wood-boring machines were also completed and a great many machine parts for outside jobs were turned out. Several wood lathes have also been planed up.



This year has seen quite a lot of electrical work done. A great many motors have been rewound and other electrical apparatus repaired. Most of the rewinding was done by Moore and Stoll. At present, however, Schwartz is taking up that class of work. Mr. Woodman also has several amateurs winding armatures. Before the close of the term a ten-horsepower motor will be in course of construction.

The most important work going on now in the shop is the finishing up of the new twenty-inch shaper and a twenty-inch drill press, and the overhauling of a 4 x 6-inch hoist. The foundry engine is also being rebuilt and a new lathe chuck will be completed in the near future.

"Chief" Engineer Dixon has given all the Juniors a course in engine-running and boiler-room practice. There are many improvements to be seen in the shop that were caused by him, and everybody appreciates his efforts in trying to keep things looking well.

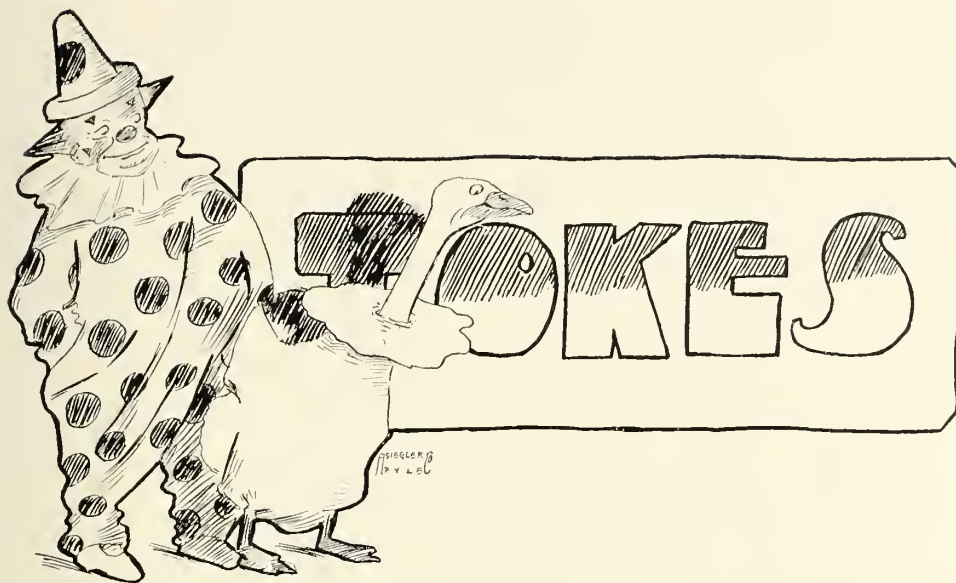
Cooking

Cooking has progressed wonderfully under the supervision of Miss Robinson, who is an excellent teacher. During the first quarter Miss Robinson was not here, but when she did come the girls started with breakfast menus. All kinds of breakfasts were tried and a thorough knowledge of the work was learned before taking up luncheon menus.

During this last quarter dinner was the chief object, and these menus were prepared by the girls themselves. On Thursday of each week the luncheons are served to some guests for the practice in the art of serving gracefully. A number of large luncheons were also given to the teachers and girls and they were successfully carried out. A new feature of the cooking this year was the use of a cook book recommended by Miss Robinson. It was written by a Boston cooking teacher and has proven very beneficial.

GERTRUDE BARRY, '08.





Secret Society Found at Last!

MEMBERS TRACKED TO THEIR DEN!

Meeting Place Discovered!

A reporter on the *Daily Dope* has at last unearthed that startling bit of information that a secret society has actually been holding meetings at Lick! The very idea!

The society is known as the Knockers Club, with annual meetings called Knock-Fests. At these Fests old ballads are sung, such as:

“Sharpen my axe bright and keen, mother,
Sharpen my axe bright and keen,
For I’m to be Queen of the May, mother,
I’m to be Queen of the Knock-Fest!”

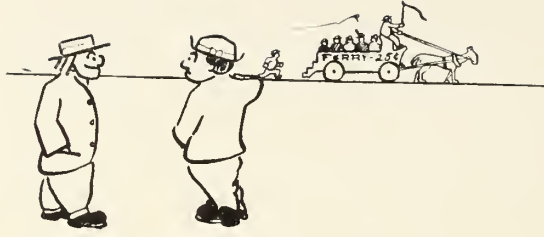


“Thumbs Down!”

(With apologies to the ancients.)



Here's to Naughty Seven, Drink 'er Down!



"Here, I owe you a nickel!"

"Oh, that's all right. You pay the fare to the ferry."



Going to School in Winter

First Dusty Citizen—"Well, unions may be all right, but I got a number on the 'phone this morning quicker than I was able to before the hello-girls went on strike!"

Second Dusty Citizen—"So did I! Why, I only had to wait fifteen minutes for a switch this morning!"

History of the Black Hand

Among the secret (?) societies of the school one of the foremost is the Mafia, better known as the Black Hand. This organization was formed for the purpose of preventing the wrecking of drawing instruments in Mr. Drew's Sanitorium. The charter was signed by the following seniors in drawing: "Bakersfield Kate" Doughty, "Chub" Morton, "Commodore" Perry, "Tee Square" Brown, "Mac" (Donald), "Peaceful" Hirschfeld, and "Fat" Rice.

The constitution imposed dire penalties on any one caught wrecking, conspiring to wreck, or thinking of wrecking any instruments, the said culprit having to buy *cider* for the crowd.

This masterpiece of literature was maliciously stolen by some one on the day of its birth. After much arduous work on the part of the society detectives the constitution was traced to John French, who stole it for the sake of the gumdrop with which it was sealed.

The society succeeded so well in their primary object that they turned their energies in another direction. Soon there appeared about the drawing room numerous posters announcing a special meeting to rouse interest in the society. At the meeting it was decided that the real stunt to obtain notoriety would be to hold a canning contest. The way this is done is to have each member do as much as he can to be canned. The experiment turned out quite a success while it lasted. The official score looks like this:

Perry—Canned 3 times.

Rice—Canned for good.

McDonald—Canned 2 times.

Brown—Canned 2 times in 1 week.

Morton—Canned 2 times.

Doughty—Ought to have been canned altogether.

Hirschfeld—Canned 1.

Athletics

A. A. L. Field Day

Owing to the lateness of the season and the inability to get the U. C. track sooner, the order of the field meets was reversed this year, the A. A. L. coming first. This placed the city schools at a slight disadvantage, as they had formerly found the San Francisco meet very beneficial in enabling their men to try themselves on the U. C. track. The teams across the bay, being so much closer, do this quite often before a meet and get a good line on the curves.

A few of our boys did themselves proud in this contest and the day was ours until the next to the last event, when an old hurdle, the color of the ground and a patch of shade, was run into by Hupp, and otherwise a sure winner he was good for but third place. The injury sustained from the fall spoiled him for the broad jump, and in this also he was good for but third place.

Golcher started the year off in fine style, winning his hundred heat in 10:1, tying the record. He won the final almost with ease and pulled a second place in fast finals in the 220.

Padilla was the next first-place man for Lick, winning the half in 2:5.

Being up against older and faster men, Johnnie Little did well to be a point-winner in the mile, getting fourth place out of a race in which about eighteen men started.

Bell's form in the hammer was as good as could be expected considering the little practicing he could do while pitching for the baseball team. His annexing second place in this and third in the shotput were both able performances.

With due credit to the Berkeley boys, whose spirit and sportsmanship during this contest was most excellent, the Lick track team need take off its hat to no one. Either the timely arrival of Lodge or a more favorable placing on the relay start could have changed the meet. The Berkeley boys were our equals and in this meet they happened to get the most points.

In the next meet we are going to happen to get the most points.

B. C. L. Field Day

There were no silent spectators at this meet. Never before were there so many records broken in a B. C. L. track contest. Never before was the excitement more thrilling, the outcome so uncertain, or the spirit manifested by both winners and losers better than at the sixteenth semi-annual field day held at U. C. oval, May 4, '07.

The splendid rooting of the Oakland rooters, which far outclassed the other sections and was carried on in the face of a losing game, certainly showed true school spirit.



The Tigers were Tigers during the entire game. From the first heat of the fifty to the last lap of the relay they fought as only Tigers can, and when they lost the meet by one point they felt that their performance had been such that there was no cause for depression, and even before the fellows were dressed they had credited the meet to experience, fixed their eyes on the fall B. C. L., and were living in the future.

To detail some:

In the fifty-yard dash Bettoli ran his heat in 5:3 and pulled a close second in the final. Branstetter failed to get set in time, and Stein, although finishing strong, did not qualify for the finals.

The two-mile was a disappointment for us. Owing to a blockade in San Francisco which lasted about two hours, our old war horse, Frank Lodge, was unable to get to U. C. until after the race had started. Lester Thompson ran a gritty dozen minus one, and took third place.

In the 440, Graff had a sore foot and Bell had lost his spikes, so neither could run. At least those were the excuses preferred. It was afterwards discovered that they were in cahoots in a scheme to found a beef trust, and were afraid of losing weight.

The hundred-yard dash was also run. Golcher ran his heat in 10: 1-5, tying the record, and then the final in a trifle under 10:2.

Barny Allsopp took first in his heat in the high hurdles and pulled down a second place in the final.

The 880 was a good race. Appel, of Cogswell, fought hard all down the last back stretch, but Padilla, with a burst of speed, left him yards behind at the finish, winning in 2:5:3, which is within two-fifths of a second of the record held by Dodson.

And then came the 220 dash. A silence fell upon the field, and as the starter called "Timers," all heads were turned, all eyes were strained. The performance of the day was at hand. Golcher gained at the start, led around the curve and part way up the stretch, but Macaulay, in the last thirty yards, let loose the final burst of speed which he always seems to have, and hit the string several feet to the good. Time, 23:1. Former record, 23:3.

The low hurdles was another good race and another record was smashed. Hupp captured his heat handily and in the finals ran in regular collegiate style, breaking the record held by Burt Golcher by 1:1-5 seconds, the time made being 26:3.

Johnnie Little ran a game mile, holding close to Hartwell lap after lap and being beaten out for second by only a few yards.

In the field events Bell and Hupp were our steadies. Bell took first in the hammer throw in good form and also got a third in the shot put. Hupp got a third in the broad, being beaten out for second by a quarter of an inch. If Baumbaugh had jumped an eighth of an inch less and Hupp three-sixteenths of an inch further we would have won the meet by one-sixteenth of an inch. How old is Anne?

The A. A. L. Cross Country Race

Notwithstanding a wet, windy day, a large crowd of Lick people were out at Nineteenth Avenue to see the men start off, and from there they went out to the Ocean Boulevard to see the finish.

Many teams were entered, about fifty men starting, and to the ordinary observer Lick's chances looked small; at least her men were small, much smaller than the other men, who seemed for the most part to be the biggest pickings from the football squads. A closer inspection of the Lick men would have shown them to be lithe, sinewy fellows with well-developed chests and small legs. A light in their eyes and firm-set jaws told plainly the spirit and determination which they carried with them.

From the start it was all over but the shouting—the Lick team came through in a bunch, the other teams came through in bunches.

The first ten men to finish were to get medals. Our men came in second, third, fourth, seventh, and tenth, all getting medals. The men were Lester Thompson, John Little, Daniels, Frank Lodge, and Cortelyou.



The Interclass Field Day

Being the first field day under the management of the Interclass League, there are several features concerning the management which we will observe.

The track was well rolled and lined. The stretch was roped off to keep back the surging throng of excited spectators, and the starter had enough cartridges

to last during the entire performance. The timers had stop-watches, the measurers a tape-line, and the announcer a megaphone. There were hurdles—that the wind couldn't blow over—and enough of them.

With almost the entire student-body sworn in as officials, the field day started promptly on time, with the excitement at fever heat, a cloud in the sky, and the thermometer "going down."

During the first portion of the meet the distribution of points was fairly equal, but toward the middle it resolved itself almost into a dual meet between '07 and '08, and from then on till the end it was either's field day until the second and third places in the broad jump gave '07 the day by two-thirds of a point.

Tennis



Tennis Team

As we go to press, the Academic League has made no announcement concerning the annual tennis championships, but the boys have gone right ahead and

chosen a team to represent Lick in the tournament. The try-out resulted in a victory for Heine Guerin, '09, and Reginald Easton, '10. These two players will represent Lick in the doubles, while Guerin will take care of the first-class singles, and Easton the second class.

Swimming

Little interest has been shown by the A. A. L. in swimming, this term. No announcement of a tournament has been received, and the various schools are wondering what has become of the Swimming Committee. What action the League intends to make is not known to us. It is a pity the League can not make an announcement at the beginning of the term what the various championships for the ensuing year will be. In this way we would be able to tell beforehand and could be prepared. But Captain Bromley is taking no chances. He has his men out and they are fast rounding into shape, so if the League decides to hold the swimming carnival the Tiger teams will be well conditioned and should carry off the laurels.

Bromley has been training, nevertheless, and will try to lower his present records. Howard Ditterle intends to do things in the "quarter," if given a chance. Shawhan, Randall, Padilla, and the other relay men are anxious for the meet to be pulled off, as they have been faithfully training for the last two months.





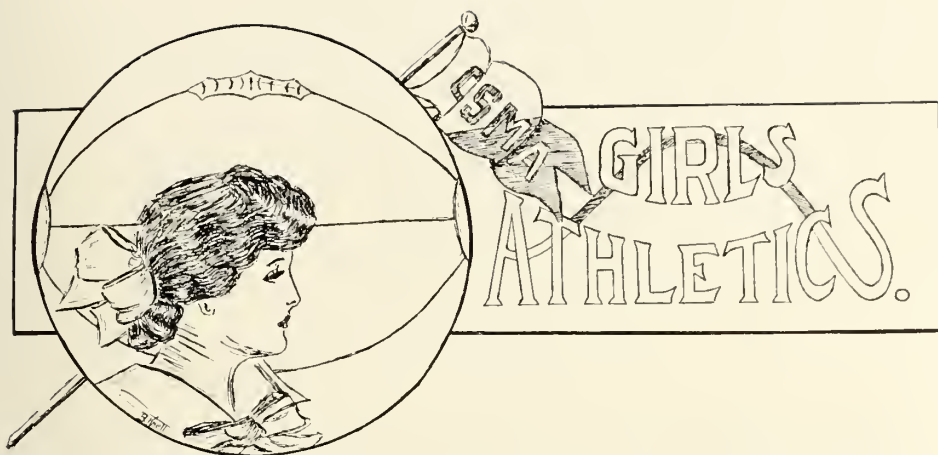
Baseball

Baseball has certainly received a shaking up this term. Our heretofore crack team went to pieces early in the season and did not recover from their slump until it was too late to win back the lost honors. No school can hold a championship indefinitely. It is a foregone conclusion that they will be defeated sooner or later. No champion can retain his title forever, he is bound to meet his Waterloo in the end. And so in baseball. Our team has practically been at the head of the list for two years and head of the city schools for the last four years. This year, however, we were not quite up to average and allowed Wilmerding, Lowell, and Sacred Heart to score on our clean list of victories. But next year the boys will go in with a new determination to win, and the championship cup is bound to come back to Lick.

We certainly take our hats off to Wilmerding. Even if they did beat us, we are glad to see them win and hope they will take as good a boost in other sports as in baseball. Wilmerding's success can be attributed to their earnest and faithful practicing, for in this respect they were faultless. Although Lick had a goodly number of preliminary games, thanks to the good work of Manager Bachelder, the boys did not seem to be able to hit the ball as in the older days of "Brick" White and "Sarah" Hall. Captain Dearin certainly did all in his power to turn out a winning team, but a team can not sit on velvet cushions and dream of the cup and bygone days, for they will certainly come to and find that the cup has vanished. And this is exactly what happened. The hard, conscientious work of the '04, '05, and '06 teams could not make the '07 team the champions, and this the team realized all too late, despite the earnest efforts of Captain Dearin. But the squad will get out and knuckle down to some hard work, next year's team will be again up to the standard, and the Tigers will once more lead the list.







Boating

The girls, under the leadership of Miss Otto, have formed the Boating Club. Outings are held once a week at Stow Lake, where special rates have been secured. The members wear the regular marine suits on their outings. Miss Otto has drawn the girls together and it is due to her efforts that the Club is so well organized. There are now sixty members in the Club. The officers of the Club are:

Miss Bertha Knell—Admiral.

Miss Ruth Parker—Rear Admiral.

Miss Agnes Fraser—First Mate.

Miss Lydia Falkenstein—Purser.

Miss T. M. Otto—Official Chaperon.

Later on the Club will hold inter-class contests. The Boating Club has already won an assured place in the life of the school.

THE FIRST OUTING.

Some time towards the end of last quarter, plans were made for an outing to be held on the first Thursday of our Easter vacation.

Thursday proved to be an excellent day for rowing. There were then only about twenty-five members in the Club, and all made their appearance at the specified time.

It took quite a little to get them started, but at last everything was settled. Some of the girls were installed as instructors in the art of rowing, and they were very successful. The girls enjoyed it so much that they went out again in the afternoon.

After the rowing the following Tuesday was chosen for the next meeting and all showed their enthusiasm in a thousand different ways.

But of course everything does not turn out as is expected. It rained on the following Tuesday, which was nothing new. There were a few girls who went out, but they did not remain long, as the water proved too wet.

THE SECOND OUTING.

One afternoon school was dismissed for a baseball game. The girls assembled and decided to go out to take advantage of the opportunity for another outing. Assistant Coaches Sweet, Thompson, and French lent their kind assistance, which helped a great deal.



Boat Club

By this time the membership of the Club had increased from twenty-five to fifty-five enthusiastic girls, and all set out from school for the lake. All were aboard the shells by half-past one and, from reports, had a glorious time.

There were quite a number of naval maneuvers on the water, such as blockades, and smuggling goods from other boats. A number of pirates also were afloat, which added greatly to the naval display.

It was at this meeting that plans were made for the marine costumes, the white blouse and hat.

THE THIRD VOYAGE.

May the fourth was not a clear day, but so much the better for rowing. By this time all the girls had their blouses. On this day they had planned to have their pictures taken for THE TIGER, but it was decided to defer that to a later time. The Club spent a pleasant and profitable morning on the lake, but left earlier than usual, for a field day scheduled for that afternoon.

The Club fills a very important and necessary place in the school. It brings the girls together in a pleasant and profitable way, and from all the enthusiasm displayed by them there is not the slightest doubt of its permanence as a prominent athletic feature at Lick.

THE **SPALDING**

on any Athletic
Ball Article guarantees
Quality and Merit



TRADE MARK

Implement or Base
to the owner Durability,

PLAY



BALL!

Only remember that if you are properly equipped you
can accomplish better work. : : : : :

Spalding's Goods have been supplied to all the lead-
ing colleges and athletes the world over for thirty years.

Jerseys, Sweaters

Archery

Track Supplies

Fencing

Gymnasium Apparatus

Lacrosse

Baseball

Bathing Suits

Football

Golf

Tennis, etc.

Cricket, etc.

"If it pertains to Athletics, we have it."

SPALDING

means HEADQUARTERS for EVERYTHING ATHLETIC

134 Geary Street, San Francisco

Send your name and address for the Spalding handsomely illustrated catalogue of sports--FREE

A. G. SPALDING & BROS.,

New York. Chicago. Philadelphia. Boston. Baltimore. Washington. Pittsburg
Syracuse. Detroit. Cleveland. St. Louis. Cincinnati. Kansas City
Minneapolis. Denver. New Orleans. San Francisco. Montreal, Canada

YOU DON'T NEED TO WORRY ABOUT THE MEAT QUESTION

IT is simple, common sense not to over heat one's self in summer with heavy, greasy meats.

**Pure, Delicious,
Cooling**

EGG-O-SEE 10¢

settles the food question finely, finally, delightfully!

Besides, Egg-O-See is so *immensely better* than the *best* of meat, both as to taste and in its nourishing, sustaining qualities, that there is no comparison.

There should be an absolute banishment of meat from the table during the hot summer months.

Egg-O-See may be prepared in many tempting hot-weather ways. Try it with peaches-and-cream, pineapple, berries and other fruits. Costs so little anyone can have it. You never tire of it.

**Your dime is yours. Don't accept any
substitute for Egg-O-See.**

FREE book "-back to nature"

The book contains nearly fifty recipes for meals all different. It gives suggestions for bathing, exercise and physical culture. It tells how to keep well and strong as nature intended.

The book has been prepared at a great expense and is illustrated with full figure pictures both for men and women. This is a splendid book and every reader of this publication should have a copy. Just drop a line saying: "Please send me a copy of your free book '-back-to-nature.' " Address

EGG-O-SEE CEREAL COMPANY

133 Hansford Bldg.

San Francisco, Cal.



Through the usual, dust-filled atmosphere of a beautiful day in spring, trudged three of Lick's most stalwart sons. Their steps were weary and their faces drawn. They plodded on in silence.

No, they were not busted, but the strike was on; and far in the distance lay their destination, the Ferry. But lo! Out of the dimness sprang relief, a locomotive rolling in that very direction. In a twinkling they clambered aboard and ensconced themselves upon the tender.

With shrieks of the whistle, the great iron brute sped on, but it was not to be for long. In a few blocks, the monster started back in the direction whence it came.

Two of the fellows instantly jumped to the ground, but Voogt, awed by the great height, lingered. The engine increased its speed. Over switches and culverts, past round-houses and box cars it flew.

Voogt saw new scenes and strange places. He saw sections of the western land he had never dreamed of. On and on it carried the unwilling passenger.

* * *

At 11:45 a. m. there arrived at the California School of Mechanical Arts, a dusty, footsore, and bedraggled youth who had during the night before walked all the way from San Jese!

"Yes, doctor, one of Willie's eyes seems ever so much stronger than the other. How do you account for it?"

"Knothole in the baseball fence, most likely, madam."—*Ex.*

Man with very little hair, entering barber shop—Barber, I want a hair cut."

Barber—"Which one?"—*Ex.*

"Yes," said the waiter, "this cafe is thoroughly up-to-date. We cook by electricity."

"Is that so?" said the guest, pointing to a platter. "Then take that beefsteak back and give it another shock."—*Ex.*

Pat fell out of a five-story window. The boss hurried down to where he hit and said: "Pat, are you hurt?"

Pat—"Never mind. I was coming down after nails anyway."—*Ex.*

PILLSBURY'S BEST FLOUR

Makes the Best, Whitest and Most Nutritious Bread



COPYRIGHT 1893
PILLSBURY-WASHBURN
FLOUR MILLS CO.

**PILLSBURY-WASHBURN FLOUR MILLS CO.
LIMITED**

Minneapolis, Minn. Largest Mills in the World

Pillsbury's Cook Book Free, on Application to

E. B. WOLFF, Sole Agent

MONADNOCK BUILDING - - SAN FRANCISCO, CAL.

Base Ball Goods

Track Supplies

Tennis & Basket Ball Outfits

Fishing Tackle and Outing Supplies

Crosby, Peet & Moe

555 Van Ness Avenue, Near Golden Gate

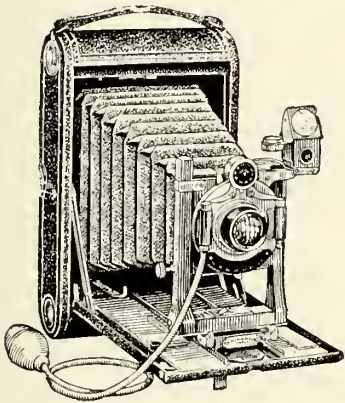
Largest and most complete
line of
Sporting Goods in town

"Dee Haw!"

Mary had a little mule,
Which often followed her to school;
The teacher said he broke the rule,
And got behind, to soak the mule,
And for six months there was no school.

Visitor—"My, what a lot of athletes you have at Lick!"

Student—"Naw! Them ain't athletes! They're just having their pictures
taken for THE TIGER!"



**KODAKS and
PHOTO SUPPLIES**

DEVELOPING and PRINTING

PERRY 2460 MISSION ST.
Near Twenty-first

**THE
CLOTHIERS
Of San Francisco
ROOS
BROS.**

Fillmore

At

O'Farrell

**TWO
STORES**

Van Ness

At

Bush

SAN FRANCISCO

The
San Francisco
Chronicle

*An example of what a newspaper
should be and
The best advertising medium
of the Pacific Coast.*

A. L. FRICK

PHONE MARKET 472

R. E. WILLS

FRICK-WILLS HARDWARE CO.

SPECIALTIES

TOOLS, CUTLERY AND
BUILDERS' HARDWARE

1180 MARKET STREET

SAN FRANCISCO



The San Francisco Face

Jules' Restaurant

326 BUSH STREET

Bet. Kearney and Montgomery

(Formerly of 315 Pine Street)

*Open Evenings Including Sundays
Music Sundays*

Telephone Temporary 1812



¶ When wearing Tuxedos, or evening dress clothes, there is a peculiar satisfaction in knowing that they are just correct in every little detail.

¶ The designers and tailors in New York who make "The Hastings" dress garments are constantly studying to perfect their style and grace, and they are strictly in accord with the fashion as decreed for 1907, as shown above.

¶ The superiority of style and finish is not their only advantage. The price is one-half that of any well made custom suit. Trying on a garment will convince you.

The Hastings Clothing Co.

Van Ness Avenue and Pine Street

Telephone Franklin 525

San Francisco

5000
HATS



ONE
PRICE

"Tooken"

He took her!

Who took'er?

Why, Tooker took'er!

Problem in Kinematics

He sat upon a thumb-tack—

He jumped into the air.

Find:—Angular velocity

With reference to the chair.

THOMAS MAGEE & SONS

TEMPORARILY LOCATED AT 22 GEARY STREET

Real Estate
Bought and Sold

Prompt attention given to all properties listed with us, either for sale or lease.

Leases
Negotiated

Owners are invited to investigate the merits of our *Leasing Department*, which has recently been considerably augmented, before listing their property elsewhere.

Our aim is to accord prompt and courteous treatment to all.

THOMAS MAGEE & SONS, 22 Geary St.

O. J. FLADMARK :-:

GROCER

Delicacies and Dairy Produce a Specialty

Phone West 4773

601 Baker St., Cor. Fulton

That Hungry Feeling

SPEEDILY AND
THOROUGHLY DISPELLED

INTERNAL TREATMENT. Just around the corner on Potrero Ave., near 16th.

**Lunches, Coffee, Cornucopias,
School Supplies, Stationery, Candies**

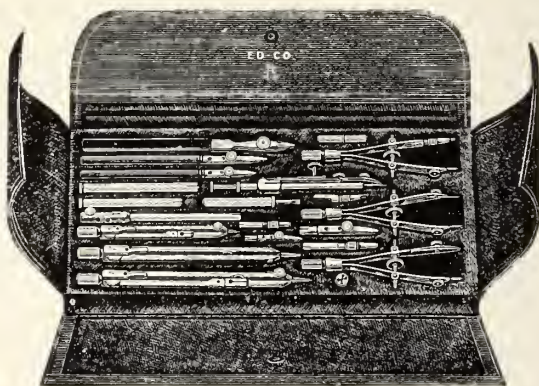
Miss M. Donohue

*Richter Instruments of
Precision*

FAMOUS THE
WORLD OVER

Our 416-page Catalogue contains full
description and price-list of these
instruments

SPECIAL PRICES TO STUDENTS



No. 798.

EUGENE DIETZGEN CO.

16-28 First Street, San Francisco

Ballads of Tick

I.

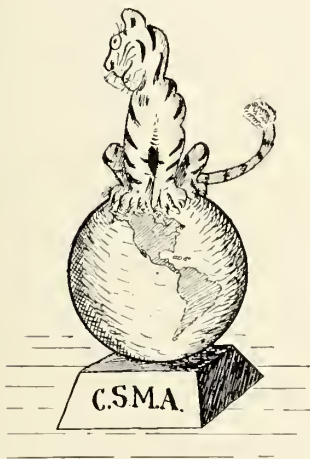
George A. sits in his office chair,
Writing with red-hot ink;
The youth is on the carpet there,
So scared he canna think.

II.

Pappah sits at his desk downtown,
A shorthand hand hands he;
The postman rushes in the door—
A letter to pa hands he.

(Transition here omitted.)

The youth studies hard at school all day,
A rough-house no more roughs he;
But he lives the life of a monk at ease,
Nor the queens no longer queens he.



"Smile!"

Bortfeld's

Hats For Young Men

\$2.00 & \$3.00

ALL SCHOOL BANDS KEPT ON HAND

1059 FILLMORE ST. NEAR GOLDEN GATE AVENUE

RADKE & CO.

**JEWELERS AND
SILVERSMITHS**

=====
*They have the Finest Assortment of High
Grade Jewelry ever displayed in the City.*

=====
*Van Ness Ave. and Bush Sts.
SAN FRANCISCO, CAL.*

HEALD'S

BUSINESS COLLEGE

Prepares High School Graduates for Business and Engineering pursuits.

Never in the history of San Francisco has there been such a demand for young men and women in business. Never have salaries been better. A diploma from Heald's is a guarantee of a good position. Don't put off securing the proper preparation.

ADDRESS

Heald's Business College
1451 Franklin Street, San Francisco, Cal.

THE OVERALL LAUNDRY AND SUPPLY CO.

JOS. T. CAVANAUGH, Prop.

**Calls Made Every Friday at 4:30 p. m. and Deliveries Made
Monday at 8:30 a. m**

BUTTONS SEWED ON AND MENDING DONE

Overalls	-	10 cents	Blouses	-	10 cents	Overalls, with Bib	-	10 cents
		Jumpers	-	10 cents	Aprons	-	5 cents	

Telephone Market 143

**876 BRYANT Cor. 7th
SAN FRANCISCO**

METROPOLITAN--CALIFORNIA--BUSINESS COLLEGE

R. H. WEBSTER, M. A., President, Ex-Supt. City Schools.

L. A. JORDAN, B. L., Manager, Ex-Dep'y Supt. City Schools.

B. E. JORDAN, Lowell, '03, Ass't. Manager.

Commercial

Stenographic

Academic

METROPOLITAN--A high-grade business and stenographic college; managers and heads of departments, business experts and university graduates; 300 enrolled annually; modern equipments and up-to-date methods; the better positions found for all graduates; the "METROPOLITANS" are in demand in the best business houses; favorable rates; send for booklet or call. **Special half-day rates** to those who attend high schools for half a day. Representatives of all the High Schools among the alumni and those attending.

DRAWING:—*Mechanical, (Electrical), Architectural, with privilege of commercial, stenographic and academic courses, together with the higher mathematics; evenings, \$5 per month.*

925 Golden Gate Ave., Opp. Jefferson Square

How He DREW a Lemon

Little Willie had an auto
Painted black and red.
Some one stole the high gear, and
He used the low instead.

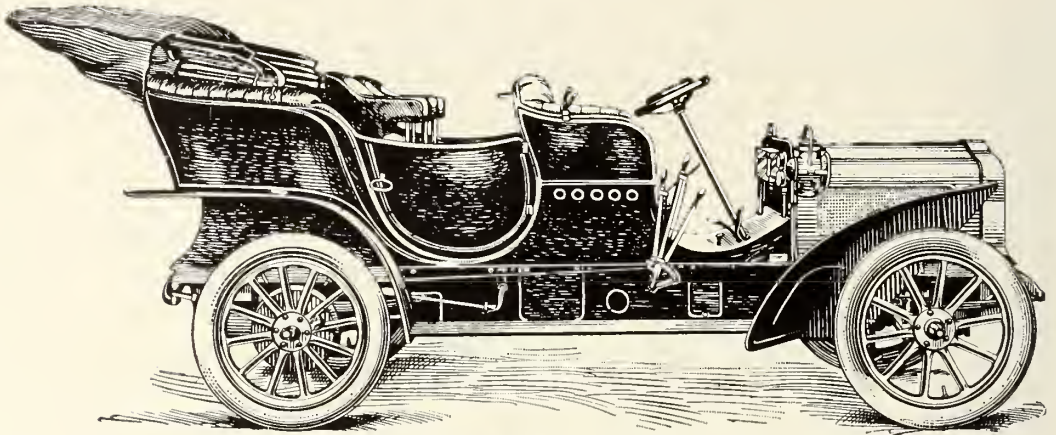
An old man saw this auto,
And said he knew it, too;
That it was a model Winton,
Built in 1492.



Future Home
of the

HASTINGS CLOTHING CO.

Post and Grant Ave.
Present Location :
Van Ness at Pine



The “WHITE” Steam Car

1907 Model—Pullman Body

TO THE MECHANICALLY INCLINED, this car is the most interesting on the market.

¶ There is only one car of this type manufactured, because the entire system of steam generation and control is covered by patents.

¶ This means that the White car contains more novel features, and marks a later development, than any other car.

¶ Moreover, all the features are of American development—they are the successful achievement of American workmanship—and make the “White” the most distinctive American car on the market.

¶ Does this excite your curiosity? Investigate the “White” carefully, and the more seriously you consider it, the more it will command your admiration.

THE WHITE COMPANY

MARKET AND VAN NESS

-

-

SAN FRANCISCO

Sullivan's Shoes

FOR EVERYBODY

1470 Market Street

North Side, Opposite 8th St.

Here's to a lad named Dobile
Who ran 'round in an automobile,
But his legs are so short
That to start with a snort
He had to build cork on each heel.

There once was a mule named McGraw,
And all he could say was "He haw!"
When they said, "It's in vogue
Not to use such a brogue,"
He replied, "No more brays will I braw."

First Great Explorer—"Where is Sixteenth Street?"

Second Great Explorer—"Why, Sixteenth Street rises near Bryant Avenue
and flows toward the bay!"

Choosing a Bank

is one of the most important acts in
the career of a business concern. The
right banking connection is of material
help to any enterprise.

Our record since organization is one
of conservatism, energy and steady
progress.

THE AMERICAN NATIONAL BANK

OF SAN FRANCISCO, CAL.

P. E. BOWLES, President

JOHN W. WILSON, Vice-President

E. J. BROBERG, Assistant Cashier

E. W. WILSON, Vice-President

GEO. N. O'BRIEN, Cashier

THE LYCEUM

An excellent preparatory school for the University, Law and Medical Colleges.

Here you can save time and money and still get a preparation superior to that given by other schools.

Come and be with us; we prepare you well.

DAY AND EVENING SESSIONS

L. H. GRAU, PH. D.

Principal

2590 Pine St.

Cor. Scott

BICYCLES

IT WILL PAY YOU TO PURCHASE
YOUR BICYCLES AT

THE CYCLERY

OPEN EVENINGS

The oldest established Bicycle House
in San Francisco

W. E. LEE, Proprietor

504 Stanyan St. and 1973 Page St.

OUR STOCK COMPRISES

California, Reading-Standard, Snell,
Columbia, Rambler, National, Tribune,
Cleveland, Wolff-American, B. & H., etc.

Highest Price allowed on Old Bicycles
in Exchange for New Ones

Bicycle Sundries, such as Tires, Lamps, Bells,
Horns, Etc., in Stock and sold at Lowest Prices

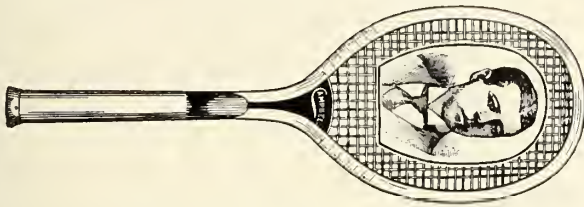
G. R. PUCKETT INSTRUCTOR IN DANCING



Cotillion
Hall

Church St.
at
14th and
Market

Phone Grove
105

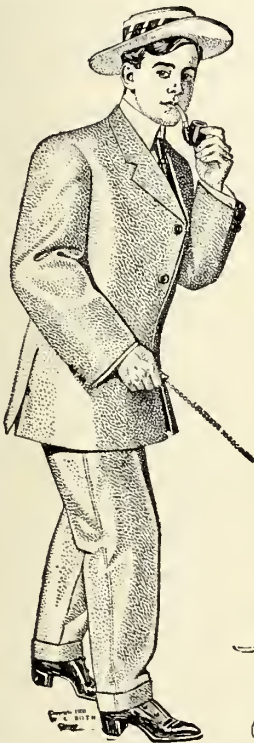


*Wright & Ditson Rackets
Athletic Goods
Sprinting Shoes
And Track Supplies
Rackets Restrung*

PALACE HARDWARE COMPANY
638 MARKET STREET

There was a fine fellow named Louder
His head contained nought but black powder;
When they said, "You're a liar!"
In his wrath he caught fire,
And blew his top into clam chowder.

There is a young man, *not* in Me,
Who's got a pictorial bre.
But his manner with girls
And his long wavy curls
Always Paynefully give us a Pe.



DAPPER and SMART

The Art of Being Well Dressed

are the charming features of our

Cholly Knickerbocker Suit

THE "Cholly Knickerbocker" comes in all the Dust-hiding Colors and in the new Cinnamon Browns—Awfully Smart and Swagger, and in the Spotless Grays. Just the colors that look neat and tidy at all times— as though you just stepped out of a bandbox. The sort of colors and the smart effect that you are after.

12.50
the suit



Raphael's

GOOD FOR YOU!

Alhambra Mineral Water

Springs near Martinez, California

GINGER ALE

San Francisco Agents:

HOEFER, HANJES & HAGERMAN, 340 Fell Street

KODAK

All Outdoors, and Indoors, too,
is Yours with the KODAK

LET US EXPLAIN THE SIMPLE AND INEXPENSIVE PLEASURES OF THE KODAK

DAYLIGHT ALL THE WAY

Telephone
West 2644

J. F. KINMAN

2204 Fillmore St
San Francisco

WYNNE'S PHARMACY

PURE DRUGS

Prescriptions a Specialty

Phone Market 100

Cor. 22d and Folsom

INTERNATIONAL STATIONERY

DRAWING MATERIALS
STATIONERY
ENGRAVING

PERIODICALS
SPORTING GOODS
CAMERA SUPPLIES

and **SUPPLY CO.**
J. A. CONNELLY T. L. MILLER
3011 16th St., corner Mission

A jerk!

A start!

A sudden

stop!

And all the school is on the hop!

Our Prof.,

(The one who talks by sign),

Is underneath, upon the floor,

To fix his Winton, '49!

“THE HASTINGS”

YOUNG MEN'S SUITS ARE STRICTLY COR-
RECT IN EVERY DETAIL OF STYLE AND CUT

OUR TWO PIECE SUITS

ARE MADE IN STYLES AND PATTERNS
THAT MAKE THEM MOST ATTRACTIVE

THE HASTINGS CLOTHING COMPANY

Van Ness Avenue at Pine Street

H. HARTJE

DEALER IN

GROCERIES, PROVISIONS

WOOD AND COAL
HAY AND GRAIN

Cor. 16th and Potrero Ave.

SAN FRANCISCO

GOOD TOOLS AND GOOD SCHOOLS

MAKE MASTER MECHANICS

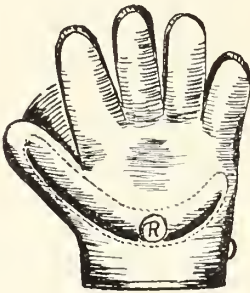
We are glad to help the mechanical student reach his goal by giving him the benefit of our tool knowledge which has taken years to acquire.

Our stock is probably the largest in San Francisco and we know your needs.

All standard brands are sold at the lowest possible prices.

**Gregory Hardware
Co.** 519-521 Golden Gate Avenue
Near Van Ness Avenue

Open Saturday Evenings



Baseman's and Catcher's Mitts

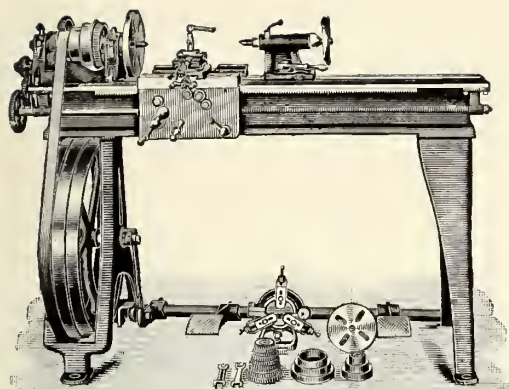
EVERYTHING ELSE IN BASEBALL GOODS

BRITTAIN & CO.

Cor. Van Ness Ave.
and Turk Street

908-910 Broadway
Oakland

1206-10 Polk St.
Corner Sutter



C. W. MARWEDEL

Machine Tools

And Shop Supplies

Largest Stock on the Coast

BRASS, COPPER, STEEL

*Agents for Morse Drills, Starrett Fine
Tools. B. F. Barnes Co's Machinery*

256-260 Ninth Street, Near Folsom

Quinine for Queeners

Queener quietly questions Queen. Queer qualms quail Queener. Quotes quatrain. Quaking questions quickly qualify quarrel. Queen quits Queener. Quadrillion quarters quell quibbling quarrel. Quick quadruped quashes quandary. Quebec Quaker quizzes quavering quantities.

Quotient.—“Quack, quack!”

First Mystery—“Why is Lick School like a slaughter house?”

Second Lemon Pie—“Dunno.”

First Cornucopia—“Because all the bad ones get canned!”

YOU CAN BUY PAPER

from several Houses West of Chicago, but

A. Zellerbach & Sons

is the only House in the West able to give you
quality, quantity, promptness and low prices today

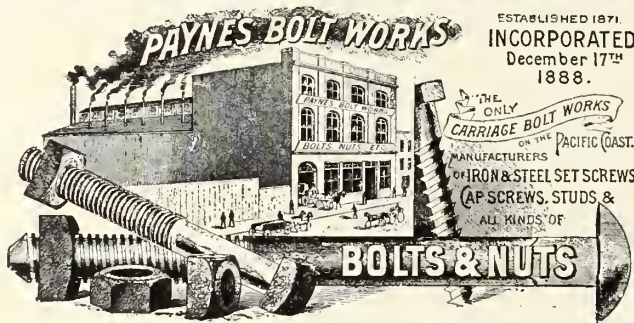
WHITE BROTHERS

INCORPORATED

HARDWOOD LUMBER

Importers and dealers in Oak Ship Plank and Timber, Locust Treenails and Wedges, Mahogany Primevera, Teak, Walnut, Butternut, Cherry, Sycamore, Ash, Spanish Cedar, Maple, Gum, Quartered Sawed Oak, Veneers and Dowels. Special sizes furnished to order at short notice.

COR. SPEAR AND HOWARD STREETS, SAN FRANCISCO, CAL.



ESTABLISHED 1871.
INCORPORATED
December 17TH
1888.

G. L. PAYNE, President

133-143 HOWARD ST.
San Francisco, California

TELEPHONE TEMPORARY 272

Mrs. B. Dettling

School Supplies, Stationery, Bakery

Lunch Room, Fine Candies

Drawing Materials

386 Utah Street

-

San Francisco



LUNDSTROM HATS

All the New Styles at Popular Prices

Four Stores:

1600 Fillmore St. (Raphael's Hat Dept.)

1177 Market St. (opp. Central Theater)

64 Market St. (near Ferry)

530 Haight St. (near Fillmore)

"Please pass me 'The Review of Reviews,' " he said;
The landlady's eyes did flash,
For another boarder looked absently up,
And solemnly passed the hash.

—Ex.

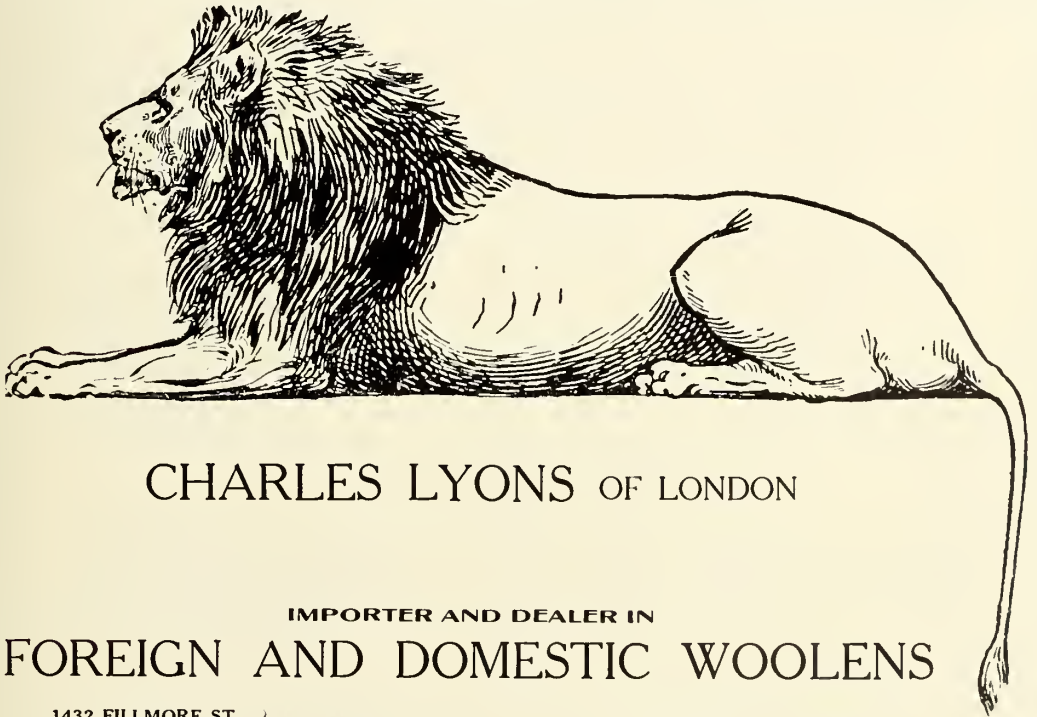
He failed in German, flunked in Chem.

They heard him softly hiss:

"I'd like to find the man who said

That ignorance is bliss."

—Ex.



CHARLES LYONS OF LONDON

IMPORTER AND DEALER IN

FOREIGN AND DOMESTIC WOOLENS

1432 FILLMORE ST.
731 VAN NESS AVE. { San Francisco.

958 BROADWAY, Oakland

Established 1872

Telephone Franklin 608

ALEXANDER-YOST CO.

Successors to Osborn & Alexander

Machinery, Machine
Supplies, Etc.

TOOLS

For All Trades

1435 PINE STREET, near Polk

San Francisco

A Specialty Store for

Misses' Wearing Apparels

Entirely New Display of

Evening and Graduation Dresses

I. MAGNIN & CO. *Van Ness at Bush*

Doble Water Wheels

Are superior in Design, Material,
Workmanship, Durability
and Efficiency.

**Hydro-Electric Units
a Specialty**

**COMPLETE POWER PLANTS
DESIGNED AND INSTALLED**

Write for our new Catalogue
Bulletin No. 70

Abner Doble Co.

ENGINEERS

Fremont and Howard Sts., San Francisco, Cal.

The John McDougall Caledonian Iron Works Co., Ltd.
Montreal, Exclusive Licensee in Canada.

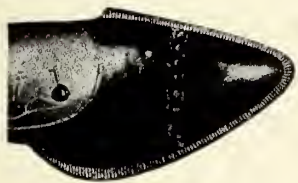
GOLCHER BROS.

Formerly of Clabrough, Golcher & Co.

*Base Ball
Vacation Outfits
AND
Sporting Goods*

511 MARKET ST.

Telephone Temporary 1883



¶ You'd probably thank us more for shoe comfort than for any other service we could render you. In our shoe department we are prepared to give you comfortable shoes, properly fitted, and all the newest shapes.

¶ Tans, in both Oxfords and Lace, bid fair to be more than usually popular.

¶ We are well prepared in all styles.

¶ If given an opportunity, our shoe salesmen will use every care to see that you are properly fitted.

THE HASTINGS CLOTHING CO.
Van Ness Avenue, at Pine

JOHN FINN, President

ROBERT B. FINN, Secretary

JOHN FINN METAL WORKS SAN FRANCISCO

BABBITT METALS

N. W. Corner

SOLDER AND GALVANIZING Second and Harrison Streets

The San Francisco Business College and *The Merrill-Miller College*

Two of the best schools have consolidated, and are endeavoring to give better instruction than ever in all commercial and stenographic subjects.

733 FILLMORE STREET

IF YOU USE

PAPER OF ANY DESCRIPTION

It will pay you to call upon or write to

BONESTELL, RICHARDSON & CO.

473 6th Street, cor. Bryant Street, San Francisco



Keen Kutter Tools

ARE RELIABLE

Gage Planes

Starrett Tools

ABSOLUTELY GUARANTEED

SMITH BROS. HARDWARE CO.

1213 BROADWAY--18 SAN PABLO AVE--OAKLAND, CAL.

"If you died right now at this moment, my little friend," said the pastor,
"where would you go?"

"Morgue," replied Johnnie quickly.—*Ex.*

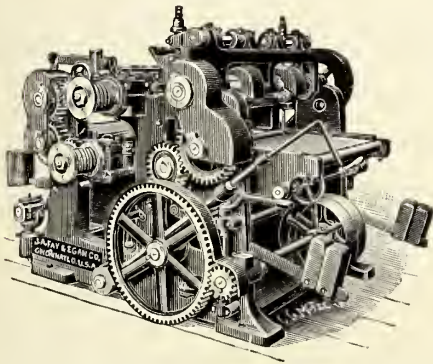
The reason why these lines appear
Is just because there was a fear
That without their hidden plot
This would be a vacant spot.

—*Ex.*

HARRON, RICKARD & McCONE

436 Market Street
San Francisco

164 No. Los Angeles St.
Los Angeles



*Machinery
and Supplies*

LATHES, PLANERS, SHAPERS, DRILL PRESSES, BOLT CUTTERS,
PIPE THREADING MACHINES, MILLING MACHINES, PNEUMATIC
TOOLS, DRILL GRINDERS, PUNCHES, SHEARS, BENDING ROLLS,
MOULDERS, BAND SAWS, SHINGLE MACHINES, SAWTABLES,
SWING SAWS, ETC., ETC.

Remember

these engravings
were made by

US

Don't forget

this book was
printed by

US

The engraving and printing of
this book was executed in its
e n t i r e t y b y

CALKINS PUBLISHING H O U S E

24 CLAY STREET
S A N F R A N C I S C O

Soon in our new six-story
building, corner Battery and
C o m m e r c i a l S t r e e t s

You have heard of

good printing but now
you see it done by

US

Now you know

you get good
printing from

US

Printed in U.S.A.



WINTER SERVICE 1906-07

TWO - FINE - FAST - TRAINS

EVERY DAY EAST OVER THE SUNSET ROUTE

THROUGH NEW ORLEANS

UNSURPASSED SERVICE OBSERVATION PARLORS CAFE
DINING CARS DRAWING ROOM SLEEPERS
PERSONALLY CONDUCTED EXCURSION SLEEPERS

NEW YORK PHILADELPHIA WASHINGTON CINCINNATI CHICAGO BOSTON



THE SUMMER WAY ON A WINTER DAY

Select Dining Car Service : : : :
Parlor, Observation, Library and Cafe
Drawing-Room Sleepers without change

PERSONALLY CONDUCTED TOURIST EXCURSION
CAR PARTIES FOR

CHICAGO, ST. LOUIS, CINCINNATI, NEW
ORLEANS and WASHINGTON

*Connections made at New Orleans with
trains for the North and East or Southern
Pacific's new Coastwise Steamers---largest
in the world. Steamer trip adds no more
to cost of ticket than for an all rail route*



WRITE AGENTS

SOUTHERN PACIFIC

